STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

ANNUAL EMISSION REPORT	FOR AGENCY USE ONLY

1a. NAME OF OWNER: Caterpillar Tractor Co.		2a. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER): Caterpillar Tractor Co.	
1b. TELEPHONE NUMBER: 815-729-5511		2b. STREET ADDRESS OF EMISSION SOURCE: Channahon Rd.	
1c. STREET ADDRESS OF OWNER: P.O. Box 504		2c. CITY OF EMISSION SOURCE: Joliet	2j. TELEPHONE NUMBER: 815-729-5511
1d. CITY: Joliet		2e. COUNTY: Will	2f. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO
1e. STATE: Illinois	1f. ZIP CODE: 60434	2g. TOWNSHIP: Joliet	2h. ZIP CODE: 60434

PERMIT INFORMATION AND REFERENCE

3. APPLICATION NUMBER	IDENTIFICATION NUMBER	IS THE DATA AND INFORMATION PREVIOUSLY SUBMITTED TRUE, CORRECT, CURRENT AND COMPLETE?	MAXIMUM EMISSIONS FROM THIS OPERATION HAVE: INCREASED	REMAINED THE SAME	DECREASED	PERCENTAGE BY WHICH EMISSIONS HAVE INCREASED OR DECREASED
0 4 0 2 0 0 2 1	1 9 78 0 9A A C	☒ YES ☐ NO		X		
0 5 0 8 0 2 2 4	1 9 78 0 9A A C	☒ YES ☐ NO		X		
0 2 1 1 1 5 3 7	1 9 78 0 9A A C	☒ YES ☐ NO		X		
0 6 1 1 0 0 0 1	1 9 78 0 9A A C	☒ YES ☐ NO		X		

4. PERIOD COVERED BY THIS REPORT: FROM 3-18-77 TO 6-23-78

5. THE ABOVE INFORMATION IS SUBMITTED IN ACCORDANCE WITH PCB REGS., CHAPTER 2, RULE 107(b) AS ADOPTED APRIL 14, 1972, AND THE INFORMATION IS TRUE, CORRECT, COMPLETE, AND CURRENT. THE SIGNATURE MUST BE THAT OF THE PERSON AUTHORIZED TO EXECUTE AN OPERATING PERMIT APPLICATION.

AUTHORIZED SIGNATURE David C. Mettler

NOTE: IF THE INFORMATION EXHIBITED ON THE REFERENCED OPERATING PERMIT APPLICATION IS NO LONGER CORRECT, DIRECT UPDATING INFORMATION TO:

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
PERMIT SECTION
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

THIS DOCUMENT IS NOT A PERMIT APPLICATION AND IS SOLELY FOR INFORMATIONAL AND STATISTICAL PURPOSES.

APC-208

217/782-2113 May 20, 1976

CERTIFIED MAIL

153776

CATERPILLAR TRACTOR COMPANY
Box 504
Joliet, Illinois 60434

Attention: Mr. Peter P. Donis

Reference
Application No. - O 3 02 0143
I. D. No. - 197 800 AAC J HTG PLNT
Received - February 25, 1976
Operation of - Joliet Plant Heating Plant
Location - Channahon Road
Joliet, Illinois
County - Will

Gentlemen:

Pursuant to the requirements of the Environmental Protection Act (Act) and the Regulations thereunder the Agency has reviewed the above-referenced permit application and as final action pursuant to Section 39 of the Act hereby denies the permit. The reasons the permit application is denied are below.

The provisions of the PCB Regs., Chapter 2, Rules 102, 303, 307 and 308 may be violated if the permit were granted.

As required by Section 39 of the Act the following is a statement of specific reasons why the Act and the Regulations cited above might not be met.

Rule 102 of Chapter 2: Air Pollution of the Illinois Pollution Control Board's Rules and Regulations provides in pertinent part: "No person shall cause or threaten or allow the discharge or emission of any contaminant into the environment. . .so as, either alone or in combination with contaminants from other sources, to cause or tend to cause air pollution. . .or so as to prevent the attainment or maintenance of any applicable ambient air quality standard."

The application fails to provide sufficient information to prove that the applicant's emission sources either alone or in combination with contaminants from other sources will not violate the nondegradation requirements of Rule 303 of Chapter 2.

The application fails to provide sufficient information to prove that the applicant's emission sources either alone or in combination with contaminants from other sources will not prevent the attainment or maintenance of the applicable ambient air quality standards for particulates and sulfur dioxide set forth in Rules 307 and 308 of Chapter 2.

If we can be of any assistance regarding this or other permit related matters, please contact us.

Very truly yours,

Keith J. Conklin, P.E.
Manager, Permit Section
Division of Air Pollution Control

DRD:jab

2 w/el cnd.

5-20-76 Reg

CATERPILLAR TRACTOR CO.

Joliet, Illinois 60434

make all three boilers into 1 permit
Φ 5080224 deleted (boiler #4 combined into Φ 3020143 (boiler #2 & #3)

February 25, 1976

Mr. Keith J. Conklin P.E.
Manager Permit Section
Division of Air Pollution Control
200 W. Washington St.
Springfield, Illinois 62706

Subject: Operating Permit Renewal	
Application No.	0 3 02 0143
ID No.	197 809 AAC
Received	August 11, 1975
Operation of	Joliet Plant Heating Plant Boilers #2 & #3
Location	Channahon Road, Joliet, Illinois
County	Will

Gentlemen:

Enclosed please find two completed copies of our operating permit renewal application for coal fired Boilers #2 and #3 of the Joliet Plant Heating Plant.

If you have any inquiries regarding this permit renewal application, it will be most convenient and expedient if you direct them to:

Caterpillar Tractor Co.
Box 504
Joliet, Illinois 60434
Attention: R. F. Vonachen, Plant Engineer
Phone: 815-729-5210

Very truly yours,

Dave Beck

R F Vonachen
R. F. Vonachen

DB:maa

OPERATING PERMIT
RENEWAL APPLICATION

Application No:	0 3 02 0143
ID No.	197 809 AAC
Received:	August 11, 1975
Operation of:	Joliet Plant Heating Plant Boilers #2, #3, #4
Location:	Channahon Road, Joliet, Illinois, Will County

In light of the recent decision in Commonwealth Edison Company v. Pollution Control Board wherein the Illinois Supreme Court affirmed the First District Appellate Court's decision declaring Illinois Rules 203(g)(1) and 204(a)(1) and (c)(1)(A), Chap. 2 of the Pollution Control Board's Rules and Regulations unenforceable, Caterpillar Tractor Co. hereby requests that you please take the necessary steps to issue operating permits for our Joliet Plant's Heating Plant coal fired boiler facility, namely Boiler Nos. 2 & 3 & 4. Coal fired Boilers #2 & #3 are currently referenced to operating permit No. 0 3 02 0143. Dual fuel (coal and gas) Boiler No. 4 is currently referenced to operating permit No. 0 5 08 0224. It should be removed from this permit and incorporated into this application as a dual fuel boiler.

The coal and natural gas information for dual fuel Boiler #4 will be the same as that already incorporated into previous operating permit applications No. 0 3 02 0143.

You should consider this document as a formal resubmission of our operating permit applications, with the exception that any reference in our prior permit applications to any compliance schedule designed to meet the emission limitations of said rules should be disregarded.

Caterpillar Tractor Co. Date Feb 23 1976

By _____ Plant Manager

RECEIVED
FEB 25 1976
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
STATE OF ILLINOIS

217/782-2113

September 10, 1975

CERTIFIED MAIL

15380V

CATERPILLAR TRACTOR CO.
Box 504
Joliet, Illinois 60434

Attention: Mr. Peter Donis

Reference
Application No. - 0 3 02 0143
I. D. No. - 197 809 AAC HTG PLT
Received - August 11, 1975
Operation of - Joliet Plant Heating Plant
Location - Channahon Rd.
Joliet, Illinois
County - Will

Gentlemen:

Pursuant to the requirements of the Environmental Protection Act (Act) and the Regulations thereunder the Agency has reviewed the above-referenced permit application and as final action pursuant to Section 39 of the Act hereby denies the permit. The reasons the permit application is denied are below.

The provisions of the PCB Regs., Chapter 2, Rules 203(g)(1)(A) and 204(c)(1)(A) may be violated if the permit were granted.

As required by Section 39 of the Act the following is a statement of specific reasons why the Act and the Regulations cited above might not be met.

Rule 103(b)(3) specifies minimum data and information requirements to be contained in an operating permit. As your permit application did not fulfill these requirements, the Agency could not complete its analysis pursuant to the Air Pollution Control Board Regulations.

The Agency requires the following data and information items to complete its analysis:

1. Proof of compliance of Boilers #2 and #3 with Rules 203(g)(1)(A) and 204(c)(1)(A).

If we can be of any assistance regarding this or other permit related matters, please contact us.

Very truly yours,

Keith J. Conklin, P.E.
Manager, Permit Section
Division of Air Pollution Control

AMT:jab

2 cc

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

2200 Churchill Road Springfield, Illinois 62706

Dr. Richard H. Briceland, Director

APRIL 05, 1975

CATERPILLAR TRACTOR CO
BOX 504
JOLIET, IL.
60434

ATTENTION - PETER P DONIS

EFERENCE
APPLICATION NO. - 03020143
ID NUMBER - 197809AAC 4 BOILRS
RECEIVED - 01-16-75
OPERATION OF - JOLIET PLANT HEATING PLANT
LOCATION - CHANNAHON ROAD
JOLIET
WILL

GENTLEMEN:

THIS LETTER IS TO ADVISE YOU THAT THE ABOVE-REFERENCED PERMIT APPLICATION IS DUE TO EXPIRE ON 08-30-75. SINCE THE PCB REGS., CHAPTER 2, PART I, RULE 103(8)(6) REQUIRE THAT AN APPLICATION FOR A PERMIT RENEWAL BE SUBMITTED TO THE AGENCY AT LEAST 90 DAYS PRIOR TO THE EXPIRATION DATE OF THE PERMIT, THE AGENCY SUGGESTS THAT YOU REAPPLY ON OR BEFORE 06-01-75.

ENCLOSED WITH THIS LETTER IS A REAPPLICATION FORM WHICH MAY BE USED IF THE OPERATION AS DESCRIBED IN THE ABOVE REFERENCED PERMIT APPLICATION REMAINS TRUE, CORRECT, CURRENT AND COMPLETE. IF THE OPERATION AS DESCRIBED IN THE ABOVE-REFERENCED PERMIT APPLICATION HAS BEEN MODIFIED AS DEFINED IN PCB REGS., CHAPTER 2, PART I, RULE 101, YOU SHOULD COMPLETE THE APPROPRIATE PERMIT APPLICATION FORMS.

UPON RECEIPT OF THIS NOTICE YOU SHOULD FURTHER APPRISE YOURSELF OF THE EXPIRATION DATES OF ALL OTHER PERMITS WHICH REQUIRE RENEWAL. SHOULD YOU HAVE ANY QUESTIONS CONCERNING THIS MATTER, PLEASE CONTACT YOUR DIVISION OF AIR POLLUTION CONTROL REGIONAL OFFICE OR THIS OFFICE. YOUR REGIONAL OFFICE IS IDENTIFIED ON THE MAP PRINTED ON THE REVERSE SIDE OF THE 'STANDARD CONDITIONS FOR OPERATING PERMITS' INCLUDED WITH YOUR CURRENT PERMIT.

IF YOU HAVE ALREADY REAPPLIED OR IF THIS NOTICE IS INAPPLICABLE, PLEASE DISREGARD IT.

VERY TRULY YOURS,

KEITH J. CONKLIN, P.E.
MANAGER, PERMIT SECTION
DIVISION OF AIR POLLUTION CONTROL

2
+ 8.75 Rep

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

2200 Churchill Road Springfield, Illinois 62706

Dr. Richard H. Briceland, Director

MARCH 05, 197
PERMIT EXPIRATION DATE 03-30-75

CATERPILLAR TRACTOR CO
BOX 504
JOLIET, IL.
60434

ATTENTION - PETER P DONIS

REFERENCE
APPLICATION NO. - 03020143
ID NUMBER - 197809AAC 4 BOILRS
RECEIVED - 01-16-75
OPERATION OF - JOLIET PLANT HEATING PLANT
LOCATION - CHANNAHON ROAD
JOLIET
WILL

0439000248

GENTLEMEN:

PERMIT IS HEREBY GRANTED TO OPERATE THE ABOVE-REFERENCED EQUIPMENT.

THIS PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. STANDARD CONDITIONS ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE.

VERY TRULY YOURS,

KEITH J. CONKLIN, P.E.
MANAGER, PERMIT SECTION
DIVISION OF AIR POLLUTION CONTROL

RKC

2 Will CNO

3-2-75

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

APPLICATION FOR A PERMIT (A)
☐ CONSTRUCT ☒ OPERATE

NAME OF EQUIPMENT TO BE CONSTRUCTED OR OPERATED: Joliet Plant Heating Plant (B)

FOR AGENCY USE ONLY
I. D. NO. 197809AAC
PERMIT NO. 9302014
DATE 8/11/25

1a. NAME OF OWNER: Caterpillar Tractor Co.		2a. NAME OF OPERATOR:	
1b. STREET ADDRESS OF OWNER: Box 504		2b. STREET ADDRESS OF OPERATOR: Same	
1c. CITY OF OWNER: Joliet		2c. CITY OF OPERATOR:	
1d. STATE OF OWNER: Ill.	1e. ZIP CODE: 60434	2d. STATE OF OPERATOR:	2e. ZIP CODE:

3a. NAME OF CORPORATE DIVISION OR PLANT: Caterpillar Tractor Co.		3b. STREET ADDRESS OF EMISSION SOURCE: Channahon Rd.		
3c. CITY OF EMISSION SOURCE: Joliet	3d. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	3e. TOWNSHIP: Joliet	3f. COUNTY: Will	3g. ZIP CODE: 60434

4. ALL CORRESPONDENCE TO: (NAME OF INDIVIDUAL)	5. TELEPHONE NUMBER FOR AGENCY TO CALL: 815-729-5111
6. ADDRESS FOR CORRESPONDENCE: (CHECK ONLY ONE) ☒ OWNER: ☐ OPERATOR ☐ EMISSION SOURCE	7. YOUR ID NUMBER FOR THIS APPLICATION: (C) HTC PIT

8. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. BY AFFIXING HIS SIGNATURE HERETO HE FURTHER CERTIFIES THAT HE IS AUTHORIZED TO EXECUTE THIS APPLICATION.

AUTHORIZED SIGNATURE(S): (D)

BY P — SIGNATURE — DATE
Peter Donis — TYPED OR PRINTED NAME OF SIGNER
Plant Manager — TITLE OF SIGNER

BY _____ — SIGNATURE — DATE
TYPED OR PRINTED NAME OF SIGNER
TITLE OF SIGNER

(A) THIS FORM IS TO PROVIDE THE AGENCY WITH GENERAL INFORMATION ABOUT THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. THIS FORM MAY ONLY BE USED TO REQUEST ONE TYPE OF PERMIT - CONSTRUCTION OR OPERATION - AND NOT BOTH.

(B) CLEARLY IDENTIFY THE GENERIC NAME OF THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. SUCH IDENTIFICATION WILL APPEAR ON THE PERMIT WHICH MAY BE ISSUED PURSUANT TO THIS APPLICATION. THIS FORM MUST BE ACCOMPANIED BY THE APPLICABLE ADDENDA.

(C) PROVIDE A NUMBER IN ITEM 7 ABOVE WHICH YOU WOULD LIKE THE AGENCY TO USE FOR IDENTIFICATION OF YOUR EQUIPMENT. YOUR IDENTIFICATION NUMBER WILL BE REFERENCED IN ALL CORRESPONDENCE, RELATIVE TO THIS APPLICATION, FROM THIS AGENCY. YOUR IDENTIFICATION NUMBER MUST NOT EXCEED TEN (10) CHARACTERS.

(D) THIS APPLICATION MUST BE SIGNED IN ACCORDANCE WITH PCB REGS., CHAPTER 2, PART 1, RULE 103(a)(4) OR 103(b)(5) WHICH STATES: "ALL APPLICATIONS AND SUPPLEMENTS THERETO SHALL BE SIGNED BY THE OWNER AND OPERATOR OF THE EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT, OR THEIR AUTHORIZED AGENT, AND SHALL BE ACCOMPANIED BY EVIDENCE OF AUTHORITY TO SIGN THE APPLICATION."

IF THE OWNER OR OPERATOR IS A CORPORATION, SUCH CORPORATION MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF THE CORPORATION'S BOARD OF DIRECTORS AUTHORIZING THE PERSONS SIGNING THIS APPLICATION TO CAUSE OR ALLOW THE CONSTRUCTION OR OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

9. AN OPERATING PERMIT APPLICATION MUST BE SUBMITTED IN DUPLICATE.
A CONSTRUCTION PERMIT APPLICATION FOR CONSTRUCTION IN COOK COUNTY OUTSIDE OF THE CORPORATE LIMITS OF CHICAGO MUST BE SUBMITTED IN QUADRUPLICATE.
A CONSTRUCTION PERMIT APPLICATION IN ALL OTHER LOCATIONS MUST BE SUBMITTED IN TRIPLICATE.

10. THE APPLICANT SHALL SUBMIT A PLOT PLAN AND MAP SHOWING DISTANCES TO THE NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE OPERATION IS LOCATED AND DISTANCES TO THE NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS. IF SUCH A PLOT PLAN AND MAP HAS ALREADY BEEN SUBMITTED, INDICATE THE ASSOCIATED AGENCY I.D. NUMBER AND PERMIT APPLICATION NUMBER. AGENCY I.D. NO. _____ APPLICATION NO. _____

11. THE APPLICANT SHALL SUBMIT A PROCESS FLOW DIAGRAM DEPICTING ALL EMISSION SOURCES AND ALL AIR POLLUTION CONTROL EQUIPMENT COVERED BY THIS PERMIT APPLICATION. THE DIAGRAM SHALL INCLUDE LABELS FOR EACH EMISSION SOURCE AND EACH ITEM OF AIR POLLUTION CONTROL EQUIPMENT, AND SHALL SET FORTH MAXIMUM FLOW RATES FOR (1) ALL PROCESSING EQUIPMENT, (2) ALL AIR POLLUTION CONTROL EQUIPMENT, (3) ALL EMISSION SOURCES, AND (4) ALL STACKS AND VENTS. NUMBER OF SHEETS: _____ DRAWING NUMBER(S): _____

12. FOR EACH EMISSION SOURCE AND EACH ITEM OF AIR POLLUTION CONTROL EQUIPMENT IDENTIFIED ON THE PROCESS FLOW DIAGRAM, THE APPLICANT SHALL COMPLETE AND SUBMIT THE APPLICABLE PERMIT APPLICATION FORMS. THE FLOW DIAGRAM SHALL INDICATE THROUGH WHICH STACK OR VENT AN EMISSION SOURCE OR ITS RELATED AIR POLLUTION CONTROL EQUIPMENT IS EXHAUSTED. IF IT IS EXHAUSTED WITHIN A BUILDING, SO INDICATE.

13. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE APPLICANT IS INCORPORATING BY REFERENCE PREVIOUSLY GRANTED INSTALLATION OR CONSTRUCTION PERMITS, HE SHALL COMPLETE FORM APC-210, ENTITLED "DATA AND INFORMATION -- INCORPORATION BY REFERENCE."

14. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE STARTUP OF ANY EMISSION SOURCE DESCRIBED BY THIS APPLICATION PRODUCES AN AIR CONTAMINANT IN EXCESS OF APPLICABLE STANDARDS, THE APPLICANT MAY REQUEST PERMISSION TO EXCEED SUCH STANDARDS BY COMPLETING FORM APC-203, ENTITLED "OPERATION DURING STARTUP."

15. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, AND THE APPLICANT IS APPLYING FOR PERMISSION TO OPERATE AN EMISSION SOURCE DURING MALFUNCTIONS OR BREAKDOWNS PURSUANT TO PCB REGS., CHAPTER 2, RULE 105, THE APPLICANT MAY REQUEST SUCH PERMISSION BY COMPLETING FORM APC-204, ENTITLED "OPERATION DURING MALFUNCTION AND BREAKDOWN."

16. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT AND ALL OR ANY PART OF THE PROCESS MUST BE CONTROLLED OR MODIFIED TO COMPLY WITH APPLICABLE REGULATIONS, THE APPLICANT SHALL COMPLETE FORM APC-202, ENTITLED "COMPLIANCE PROGRAM & PROJECT COMPLETION SCHEDULE."

17. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, DOES THE OPERATION COVERED BY THIS APPLICATION REQUIRE AN EPISODE ACTION PLAN? ☐ YES ☐ NO

18. WAS EACH EMISSION SOURCE COVERED BY THIS APPLICATION, AS OF APRIL 14, 1972, IN COMPLIANCE WITH THE "RULES AND REGULATIONS GOVERNING THE CONTROL OF AIR POLLUTION," ADOPTED BY THE FORMER AIR POLLUTION CONTROL BOARD AND CONTINUED EFFECTIVE PURSUANT TO SECTION 49(c) OF THE ENVIRONMENTAL PROTECTION ACT? ☐ YES ☐ NO

19. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, WAS THE OPERATION THE SUBJECT OF A VARIANCE PETITION FILED WITH THE ILLINOIS POLLUTION CONTROL BOARD ON OR BEFORE JUNE 13, 1972? ☐ YES ☐ NO

IF "YES," CITE PCB NUMBER(S): _____ DATE OF BOARD ORDER: _____

HAD THE APPLICANT ON OR BEFORE APRIL 14, 1972, COMMENCED CONSTRUCTION OF EQUIPMENT OR MODIFICATIONS SUFFICIENT TO ACHIEVE COMPLIANCE WITH THE APPLICABLE LIMITATIONS OF THE "RULES AND REGULATIONS GOVERNING THE CONTROL OF AIR POLLUTION," ADOPTED BY THE FORMER AIR POLLUTION CONTROL BOARD AND CONTINUED EFFECTIVE PURSUANT TO SECTION 49(c) OF THE ENVIRONMENTAL PROTECTION ACT? ☐ YES ☐ NO

IF "NO," EXPLAIN IN DETAIL AND MARK YOUR EXPLANATION AS EXHIBIT D.

TOTAL NUMBER OF PAGES IN EXHIBIT D: _____

20. IF THIS IS AN APPLICATION FOR AN OPERATING PERMIT, THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND ORGANIC MATERIAL EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES. THIS ESTIMATE SHALL INCLUDE ALL EMISSION SOURCES LOCATED ON THE APPLICANT'S PREMISES AND NOT JUST THE EMISSION SOURCES DESCRIBED IN THIS APPLICATION.

MATERIAL	MAXIMUM ONE-HOUR AMOUNTS	MATERIAL	MAXIMUM ONE-HOUR AMOUNTS	MATERIAL	MAXIMUM ONE-HOUR AMOUNTS
PARTICULATE MATTER	_____ LB	SULFUR DIOXIDE	_____ LB	NITROGEN OXIDES	_____ LB
ORGANIC MATERIAL	_____ LB	CARBON MONOXIDE	_____ LB		

21. WHAT IS THE SIZE (IN ACRES) OF APPLICANT'S PREMISES?

22. LIST AND IDENTIFY ALL FORMS, EXHIBITS, AND OTHER INFORMATION SUBMITTED AS PART OF THIS APPLICATION. PLEASE NUMBER EVERY PAGE AND STATE THE TOTAL NUMBER OF PAGES IN THIS APPLICATION.

CATERPILLAR TRACTOR CO.

Joliet, Illinois 60434

August 8, 1975

Mr. Keith J. Conklin P.E.
Manager Permit Section
Division of Air Pollution Control
200 W. Washington St.
Springfield, Illinois 62706

Subject: Operating Permit Renewal

Application No.	0 3 02 0143
ID No.	197 809 AAC
Received	1-16-75
Operation of	Joliet Plant Heating Plant
Location	Channahon Road Joliet, Illinois Will County

Dear Mr. Conklin:

Enclosed find two completed copies of our Operating Permit Renewal Application for gas fired Boilers #1 and #4 of the Joliet Plant Heating Plant.

If you have any inquiries regarding this permit renewal application, it will be most convenient if you direct them to:

Caterpillar Tractor Co.
Box 504
Joliet, Illinois 60434
Attention: R. F. Vonachen, Plant Engineer
Phone: 815-729-5210

Very truly yours,

R. F. Vonachen

(815)729-5319
DB:Maa

RECEIVED
AUG 11 1975
ENVIRONMENTAL PROTECTION AGENCY
STATE OF ILLINOIS

OPERATING PERMIT
RENEWAL APPLICATION

Application No.	0 3 02 0143
ID No.	197 809 AAC
Received	1-16-75
Operation of	Joliet Plant Heating Plant
Location	Channahon Rd. Joliet, Ill. Will County

Caterpillar Tractor Co. hereby applies for a new Operating Permit for natural gas fired Boilers #1 and #4 to operate beyond 8-30-75. It is requested that the information pertaining to Boilers #1 and #4 in operating permit application No. 0 3 02 0143 be removed and incorporated into the new Operating Permit Application by reference. To the best of our knowledge, all previously submitted information pertaining to Boilers #1 and #4 is current true and correct.

Caterpillar Tractor Co. Date August 8, 1975

By _____
Plant Manager

(217) 782-2113

December 13, 1974

CERTIFIED MAIL
153950

CATERPILLAR TRACTOR COMPANY
Box 504
Joliet, Illinois 60434

Attention: Mr. Peter P. Donis

Reference
Application No. - 0 3 02 0143
I. D. No. - 197 809 AAC 4 BOILERS
Received - October 3, 1974
Operation of - Joliet Plant Heating Plant
Location - Channahon Road
Joliet, Illinois
County - Will

Gentlemen:

Pursuant to the requirements of the Environmental Protection Act (Act) and the Regulations thereunder the Agency has reviewed the above-referenced permit application and as final action pursuant to Section 39 of the Act hereby denies the permit. The reasons the permit application is denied are below.

The provisions of the PCB Regs., Chapter 2, Rule 203 may be violated if the permit were granted.

As required by Section 39 of the Act the following is a statement of specific reasons why the Act and the Regulations cited above might not be met.

Boiler #4 is subject to a future compliance date for particulate matter emissions pursuant to Rule 203(i)(4). Your application, however, contains neither information proving that your equipment is currently in compliance with the emissions standards and limitations of Rule 293(g)(1)(A), nor a Compliance Program and Project Completion Schedule, as described in Rule 104, sufficient to prove that timely compliance with Rule 203(g)(1)(A) will be achieved. Therefore, pursuant to Rules 103(b)(6)(A) and (E) the permit requested cannot be granted.

If we can be of further assistance, please contact us.

Very truly yours,

Keith J. Conklin, P.E.
Manager, Permit Section
Division of Air Pollution Control

RKC:jab

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wee CWD

CATERPILLAR TRACTOR CO.

Joliet, Illinois 60434

0430000235

December 5, 1974

Mr. Keith J. Conklin P.E.
Manager Permit Section
Division of Air Pollution Control
200 West Washington St.
Springfield, Illinois 62706

Subject:

Application No.	0 3 02 0143
ID No.	197 809 AAC
Received	October 3, 1974
Location	Channahon Road, Joliet, Illinois
County	Will

Dear Sir:

In response to your letter of November 13, 1974 requesting additional information for Boiler No. 4 when coal fired the following information is being returned to you. Two (2) copies of our revised Operating Permit Renewal Application for the Joliet Plant Heating Plant. This should enable you to continue processing our Joliet Heating Plant Operating Permit Renewal Application #0 3 02 0143.

If there are any further inquiries regarding this operating permit application, it would be convenient and most expedient if they were addressed to:

Caterpillar Tractor Co.
P.O. Box 504
Joliet, Illinois 60434
Attention: R. F. Vonachen, Plant Engineer
Phone: 815-729-5210

Very truly yours,

R F Vonachen

R. F. Vonachen
Plant Engineer

DB:maa
(815)729-5319

OPERATING PERMIT
RENEWAL APPLICATION

Application No.	0 3 02 0143
ID No.	197 809 AAC
Received	Feb. 5, 1973
Operation of	Boilers #1, #2, #3 & #4
Location	Channahon Road Joliet, Illinois Will County

Caterpillar Tractor Co. hereby applies for a renewal of our Operating Permit No. 0 3 02 0143 for our Joliet Heating Plant. It is requested that our Compliance Plan (page 93) be revised as follows:

	A Expected Date Activity will be Completed
State date construction or modification of equipment will be completed.	10-1-74
State date applicant will test equipment to demonstrate compliance with environmental protection act and substantive regulations promulgated thereunder	4-1-75
State date equipment will be fully operational	5-30-75

The coal analysis and resulting emissions for Boilers #2, #3, and #4 should be revised to reflect the Southwestern Illinois Coal currently being used. The analysis of this coal appears on the attached sheet supplied by the Arch Mineral Corp. of St. Louis, Mo.

Dual fuel Boiler No. 4 should be revised to show that it will be operated exclusively on firm contract natural gas after May 30, 1975. After May 30, 1975 Boiler No. 4 will be operated on coal only in the event of a curtailment of our firm contract natural gas and then it will be operated either on low sulphur coal (analysis attached) or on high sulphur coal with a variance from the Illinois Pollution Control Board.

These are the only changes in our operations covered by the above mentioned operating permit since our original application on February 5, 1973. To the best of our knowledge all other previously submitted information is current true and correct.

Caterpillar Tractor Co. Date 12/5/76

By [signature] Plant Manager

LOW SULPHUR COAL ANALYSIS

P & M Mining Co.
Edna Mine
Oak Creek, Colorado

ULTIMATE ANALYSIS

	Dry
Carbon	70.1%
Hydrogen	5.0
Nitrogen	1.5
Chlorine	0.0
Sulphur	.8
Ash	10.0
Oxygen	12.6
	100.0%

ASH ANALYSIS

Phos Pentoxide	1.2%
Silica	52.8
Ferric Oxide	4.8
Alumina	31.0
TiO_2	.9
Lime	4.3
Magnesia	1.2
Sulphur Trioxide	2.5
Potassium Oxide	.8
Sodium Oxide	.4
Undetermined	.1
	100.0%

FUSION TEMPERATURE OF ASH

	Reducing	Oxydizing
Initial Def.	2635	2700
Soft (H=W)	2710	2755
Soft (H=½W)	2750	2800
Fluid	--	--

OTHER DATA

	As Received	Dry
Moisture	10.8	
Ash	8.9	10.0
Fixed Carbon	43.5	48.8
Volatile Matter	36.8	41.2
	100.0	100.0
Sulphur	.7	.8
BTU content	10,995	12,325
Grindability	48.1	

Free Swelling Index - Nonaglomerating

SOUTHWESTERN ILLINOIS COAL

COAL ANALYSES

ULTIMATE ANALYSIS	TYPICAL
Moisture	10.75
Carbon	61.35
Hydrogen	5.83
Nitrogen	1.21
Chlorine	.04
Sulfur	3.90
Ash	10.67
Oxygen	6.25
Volatile	33.06
Fixed Carbon	45.52
BTU (As Rec'd)	11,076

ASH ANALYSIS	
Phos. Pentoxide	0.59
Silica	45.44
Ferric Oxide	18.28
Alumina	20.38
Lime	7.30
Magnesia	.09
Sulfur Trioxide	3.88
Potassium Oxide	1.92
Titania	1.15
Sodium Oxide	0.55
Undetermined	0.42
Grindability	50

FUSION TEMPERATURE	
Reducing I.D.	1980
Soft (H-W)	2105
Soft (H-½W)	2170
Fluid	2260

11/21/74 AM

MR DAVE BECK ([redacted])

CATERPILLAR CALLED

RE 0302 0143
197 809 MAC (JOLIET)
(#4 BOILER)

WE REJECTED HIS PERMIT
BECAUSE OF THE STATEMENT
HE MADE ON PAGE 63
OF HIS AP

HIS LAWYER SAID THE STATEMENT
SHOULD BE CORRECT

WE DON'T AGREE (FOR THE REASON IT WAS MADE)

CALL MR BECK
HIS # IS 815 729 5319

OK — Keith called him
11/22/74 — He will delete
paragraph by letter request
before 12/6/74

0430000-79

(217) 782-2113

November 13, 1974

CATERPILLAR TRACTOR COMPANY
Box 504
Joliet, Illinois 60434

Attention: Peter P. Donis

Reference
Application No. - 0 3 02 0143
I. D. No. - 197 809 AAC 4 BOILERS
Received - October 3, 1974
Location - Channahon Road
Joliet, Illinois
County - Will

0430900234

Gentlemen:

A review of the above-referenced operating permit application, revealed your failure to disclose pertinent information, which will be necessary for the Agency to determine whether the emission of air contaminants from your operation will comply with the Illinois Environmental Protection Act, and the regulations promulgated thereunder.

We request that you send the following information:

The application does not contain a Compliance Program and Project Completion Schedule, or proof that such a plan is not needed for the following emission sources:

Boiler #4 when coal fired

This request for additional information does not affect the date your permit application was filed. Failure to supply the above requested information by December 6, 1974 may require the Agency to refuse to grant the above-referenced application.

Very truly yours,

Keith J. Conklin, P.E.
Manager, Permit Section
Division of Air Pollution Control

RKC:jab

2

-DP

197809AAC

CATERPILLAR TRACTOR CO.

Joliet, Illinois 60434

October 7, 1974

Mr. Keith J. Conklin, PE
Manager Permit Section
Division of Air Pollution Control
200 W. Washington St.
Springfield, Illinois 62706

Subject: Project Completion Reports Zurn SO2 Scrubber

Dear Mr. Conklin:

Attached are project completion reports for the construction of a SO2 and particulate scrubber at the Joliet Plant Heating Plant on Boilers #2 and #3. It is being submitted to comply with Standard Condition No. 10 of Operating Permit No. 0 3 02 0143.

If there are any inquiries regarding this project completion report, it would be convenient and most expedient if they were directed to:

Caterpillar Tractor Co.
P.O. Box 504
Joliet, Illinois 60434
Attention: R. F. Vonachen, Plant Engineer
Phone: 815-729-5210

Very truly yours,

R F Vonachen

R. F. Vonachen

DB:maa

RECEIVED
OCT 15 1974
ENVIRONMENTAL PROTECTION AGENCY
STATE OF ILLINOIS

0430000145

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

PROJECT COMPLETION REPORT

Heating Plant Boilers No. 2 & 3

FOR OFFICIAL USE ONLY
I. D. NO.
PERMIT NO. 0
DATE

1. NAME OF OWNER: Caterpillar Tractor Co.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
4. CITY: Joliet
5. NAME OF AUTHORIZED PERSON PREPARING THIS FORM: R. F. Vonachen, Plant Engineer
6. SIGNATURE: R. F. Vonachen
7. YOUR IDENTIFICATION NUMBER: (OPTIONAL) 3A & 3B
8. DATE THIS FORM PREPARED: October 7, 1974
9. OPERATING PERMIT NUMBER: (IF AVAILABLE) 0 3 02 0143
10. CONSTRUCTION PERMIT NUMBER: (IF APPLICABLE) C 3 02 010 C 3 02 138

THIS FORM MUST BE COMPLETED FOR EACH ITEM OF EQUIPMENT TO BE CONSTRUCTED OR MODIFIED IN ACCORDANCE WITH A COMPLIANCE PLAN AS DEFINED IN RULE 104, CHAPTER 2, PART 1 OF THE ILLINOIS POLLUTION CONTROL BOARD RULES AND REGULATIONS

11. DESCRIBE THE ITEM OF EQUIPMENT BEING CONSTRUCTED OR MODIFIED:

Existing coal fired boilers No. 2 & 3 at the Joliet Plant Heating Plant are to be fitted with a sodium hydroxide scrubbing system and chemical regeneration plant to remove SO2 and excess particulate from stack gas. This system is designed by Zurn Air Systems of Birmingham, Alabama.

12. IDENTIFY THE LABEL OF THIS ITEM OF EQUIPMENT AS GIVEN ON THE APPLICABLE PROCESS FLOW DIAGRAM ON FILE WITH THE AGENCY: Zurn SO2-Scrubbers Drawing No. 11 & 12

ANSWER QUESTIONS 13 AND 14 IF THIS REPORT IS TIMED IN ACCORDANCE WITH A DATE SPECIFIED ON THE PROJECT COMPLETION SCHEDULE (APC-98).

13. IDENTIFY THE LINE IN ITEM 15, APC-98, TO WHICH THIS REPORT APPLIES:

- ☐ a. STATE DATE THE APPLICANT WILL ENTER INTO A BINDING AGREEMENT TO PURCHASE OR MODIFY THIS ITEM OF EQUIPMENT.
- ☐ b. STATE DATE THE APPLICANT WILL APPLY FOR A CONSTRUCTION PERMIT FOR THIS ITEM OF EQUIPMENT OR MODIFICATION OF EQUIPMENT.
- ☐ c. STATE DATE THIS ITEM OF EQUIPMENT WILL BE DELIVERED (IF PRESENT EQUIPMENT IS TO BE MODIFIED, STATE WHEN SUCH MODIFICATION SHALL BEGIN) TO THE APPLICANT'S FACILITY.
- ☐ d. STATE DATE CONSTRUCTION OR MODIFICATION OF EQUIPMENT WILL BE COMPLETED.
- ☐ e. STATE DATE APPLICANT WILL TEST EQUIPMENT TO DEMONSTRATE COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION ACT AND SUBSTANTIVE REGULATIONS PROMULGATED THEREUNDER.
- ☐ f. STATE DATE EQUIPMENT WILL BE FULLY OPERATIONAL.

14. ENTER THE APPLICABLE DATES FROM COLUMNS A AND B, APC-98 AND THE ACTUAL DATE ON WHICH THE ACTIVITY WAS COMPLETED:

A. EXPECTED DATE ACTIVITY WILL BE COMPLETED	B. LATEST DATE ACTIVITY WILL BE COMPLETED	C. ACTUAL DATE ACTIVITY WAS COMPLETED

ANSWER QUESTION 15 ONLY IF 13 AND 14 IS NOT APPLICABLE.

15. DESCRIBE ACTIVITIES DURING PAST SIX MONTHS WHICH WILL LEAD TO COMPLETION OF COMPLIANCE PROGRAM AS DESCRIBED ON FORMS APC-95 AND APC-98:

SEE EXHIBIT A.

043900014G

EXHIBIT A

During the past six months the Zurn scrubbing units have been built, the chemical processing equipment has been installed and the chemical processing building essentially completed. The system is approximately 95% complete still lacking some automatic control equipment, emission monitoring equipment, lighting and insulation. Recently, the system has been charged with chemicals and shake down and line out operations have started. Assuming no major downtime for redesign the scrubber supplier has indicated that his preliminary stack tests can be started approximately December 1, 1974 and independent stack tests can commence as early as February 1, 1975.

CATERPILLAR TRACTOR CO.

Joliet, Illinois 60434

September 27, 1974

Mr. Keith J. Conklin P.E.
Manager Permit Section
Division of Air Pollution Control
200 W. Washington St.
Springfield, Illinois 62706

0 4 3 0 0 0 0 2 3 0

Subject: Operating Permit Renewal
Application No. - 0 3 02 0143
ID No. - 197 809 AAC
Received - Feb. 5, 1973
Operation of - Boilers #1, #2, #3 and #4
Location - Channahon Road
Joliet, Illinois
Will County

Dear Mr. Conklin:

Enclosed please find two completed copies of our Operating Permit Renewal Application for the Joliet Heating Plant.

If you have any inquiries regarding this permit renewal application, it will be most convenient if you direct them to:

Caterpillar Tractor Co.
Box 504
Joliet, Illinois 60434
Attention: R. F. Vonachen, Plant Engineer
Phone: 815-729-5210

Very truly yours,

R. F. Vonachen

DB:maa

Att

OPERATING PERMIT
RENEWAL APPLICATION

Application No.	0 3 02 0143
ID No.	197 809 AAC
Received	Feb. 5, 1973
Operation of	Boilers #1, #2 #3 and #4
Location	Channahon Road Joliet, Illino Will County

Caterpillar Tractor Co. hereby applies for a renewal of our Operating Permit No. 0 3 02 0143 for our Joliet Heating Plant. It is requested that our Compliance Plan (page 93) be revised as follows:

	A Expected Date Activity will be Completed
State date construction or modification of equipment will be completed.	10-1-74
State date applicant will test equipment to demonstrate compliance with environmental protection act and substantive regulations promulgated thereunder	4-1-75
State date equipment will be fully operational	5-30-75

The coal analysis and resulting emissions for Boilers #2, 3, and 4 should be revised to reflect the Southwestern Illinois Coal currently being used. The analysis of this coal appears on the attached sheet supplied by the Arch Mineral Corp. of St. Louis, Mo.

Dual fuel Boiler No. 4 should be revised to show that it will be operated exclusively on firm contract natural gas after May 30, 1975. After May 30, 1975, Boiler No. 4 will be operated on coal only in the event of a curtailment of our firm natural gas contract.

These are the only changes in our operations covered by the above mentioned operating permit since our original application on February 5, 1973. To the best of our knowledge all other previously submitted information is current true and correct.

Caterpillar Tractor Co. Date Sept 27 1974

By _____ Plant Manager

The above signature authorized by a resolution of the Caterpillar Tractor Co. Board of Directors dated October 13, 1972 is already on file with your office.

0430000231

SOUTHWESTERN ILLINOIS COAL

COAL ANALYSES

ULTIMATE ANALYSIS	TYPICAL
Moisture	10.75
Carbon	61.35
Hydrogen	5.83
Nitrogen	1.21
Chlorine	.04
Sulfur	3.90
Ash	10.67
Oxygen	6.25
Volatile	33.06
Fixed Carbon	45.52
BTU (As Rec'd)	11,076

ASH ANALYSIS	
Phos. Pentoxide	0.59
Silica	45.44
Ferric Oxide	18.28
Alumina	20.38
Lime	7.30
Magnesia	.09
Sulfur Trioxide	3.88
Potassium Oxide	1.92
Titania	1.15
Sodium Oxide	0.55
Undetermined	0.42
Grindability	50

FUSION TEMPERATURE	
Reducing I.D.	1980
Soft (H-W)	2105
Soft (H-½W)	2170
Fluid	2260

197809 AHC

CATERPILLAR TRACTOR CO.

Joliet, Illinois 60434

DP
MAE
FILE

February 5, 1974

Mr. Keith J. Conklin P.E.
Manager Permit Section
Division of Air Pollution Control
200 W. Washington St.
Springfield, Illinois 62706

Subject: Project Completion Reports Zurn SO_2 Scrubber

Dear Mr. Conklin:

Attached are project completion reports for the construction of an SO_2 and particulate scrubber at the Joliet Plant Heating Plant on Boilers #2 and #3. It is being submitted to comply with Standard Condition No. 10 of Operating Permit No. 0 3 02 0143.

If there are any inquiries regarding this Project Completion Report, it would be convenient and most expedient if they were directed to:

Caterpillar Tractor Co.
P. O. Box 504
Joliet, Illinois 60434
Attention: R. F. Vonachen, Plant Engineer
Phone: 815-729-5210

Very truly yours,

R F Vonachen

R. F. Vonachen

DB:maa

0430000227

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

PROJECT COMPLETION REPORT

Heating Plant Boilers No. 2 & 3

FOR OFFICIAL USE ONLY
I. D. NO.
PERMIT NO. 0
DATE

1. NAME OF OWNER: Caterpillar Tractor Co.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
4. CITY: Joliet
5. NAME OF AUTHORIZED PERSON PREPARING THIS FORM: R. F. Vonachen, Plant Engineer
6. SIGNATURE: Robert F. Vonachen
7. YOUR IDENTIFICATION NUMBER: (OPTIONAL) 3A & 3B
8. DATE THIS FORM PREPARED: February 4, 1974
9. OPERATING PERMIT NUMBER: (IF AVAILABLE) 0 3 02 0143
10. CONSTRUCTION PERMIT NUMBER: (IF APPLICABLE) C3 02 010
C 3 02 138

THIS FORM MUST BE COMPLETED FOR EACH ITEM OF EQUIPMENT TO BE CONSTRUCTED OR MODIFIED IN ACCORDANCE WITH A COMPLIANCE PLAN AS DEFINED IN RULE 104, CHAPTER 2, PART 1 OF THE ILLINOIS POLLUTION CONTROL BOARD RULES AND REGULATIONS

11. DESCRIBE THE ITEM OF EQUIPMENT BEING CONSTRUCTED OR MODIFIED: Existing Coal Fired Boilers No. 2 & 3 at the Joliet Plant Heating Plant are to be fitted with a sodium hydroxide scrubbing system and chemical regeneration plant to remove SO_2 and excess particulate from stack gas. This system is designed by Zurn Air Systems of Birmingham, Alabama

12. IDENTIFY THE LABEL OF THIS ITEM OF EQUIPMENT AS GIVEN ON THE APPLICABLE PROCESS FLOW DIAGRAM ON FILE WITH THE AGENCY: Zurn SO_2 Scrubbers, Drawing No. 11 & 12

ANSWER QUESTIONS 13 AND 14 IF THIS REPORT IS TIMED IN ACCORDANCE WITH A DATE SPECIFIED ON THE PROJECT COMPLETION SCHEDULE (APC-98).

13. IDENTIFY THE LINE IN ITEM 15, APC-98, TO WHICH THIS REPORT APPLIES:

- ☐ a. STATE DATE THE APPLICANT WILL ENTER INTO A BINDING AGREEMENT TO PURCHASE OR MODIFY THIS ITEM OF EQUIPMENT.
- ☐ b. STATE DATE THE APPLICANT WILL APPLY FOR A CONSTRUCTION PERMIT FOR THIS ITEM OF EQUIPMENT OR MODIFICATION OF EQUIPMENT.
- ☐ c. STATE DATE THIS ITEM OF EQUIPMENT WILL BE DELIVERED (IF PRESENT EQUIPMENT IS TO BE MODIFIED, STATE WHEN SUCH MODIFICATION SHALL BEGIN) TO THE APPLICANT'S FACILITY.
- ☐ d. STATE DATE CONSTRUCTION OR MODIFICATION OF EQUIPMENT WILL BE COMPLETED.
- ☐ e. STATE DATE APPLICANT WILL TEST EQUIPMENT TO DEMONSTRATE COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION ACT AND SUBSTANTIVE REGULATIONS PROMULGATED THEREUNDER.
- ☐ f. STATE DATE EQUIPMENT WILL BE FULLY OPERATIONAL.

14. ENTER THE APPLICABLE DATES FROM COLUMNS A AND B, APC-98 AND THE ACTUAL DATE ON WHICH THE ACTIVITY WAS COMPLETED:

A. EXPECTED DATE ACTIVITY WILL BE COMPLETED	B. LATEST DATE ACTIVITY WILL BE COMPLETED	C. ACTUAL DATE ACTIVITY WAS COMPLETED

ANSWER QUESTION 15 ONLY IF 13 AND 14 IS NOT APPLICABLE.

15. DESCRIBE ACTIVITIES DURING PAST SIX MONTHS WHICH WILL LEAD TO COMPLETION OF COMPLIANCE PROGRAM AS DESCRIBED ON FORMS APC-95 AND APC-98:

See Exhibit A

0 4 3 9 0 0 0 0 2 2 8

EXHIBIT A

During the past 6 months since the start of construction concrete footings for the chemical processing building have been completed. The concrete footings for the scrubbers and pipe truss are presently under construction. Foundations for equipment to be placed in the chemical processing building are under construction and should be completed within 30 days. It is anticipated that equipment will be installed starting April 1974 with completion scheduled for October 1974 so that Boilers No. 2 & 3 will be operational for the 1974 heating season at which time shakedown and testing will commence.

CATERPILLAR TRACTOR CO.

Joliet, Illinois 60434

January 21, 1974

Mr. Keith J. Conklin P.E.
Manager Permit Section
EPA Division of Air Pollution Control
200 W. Washington St.
Springfield, Illinois 62706

Subject: Project Completion Report
Boiler #4 Dual Fuel Conversion

Dear Mr. Conklin:

The final interim Project Completion Report for Boiler #4 at the Joliet Plant Heating Plant is attached. Boiler #4 is now capable of burning either coal and natural gas alone or any combination thereof successfully. However, it is our intention to continue to operate Boiler #4 on Illinois coal during the winter heating season until May 30, 1975 to conserve natural gas in line with Federal Energy Office requests. Additional details regarding this operating intention are available in the attached Project Completion Report. This report is being submitted to comply with Standard Condition No. 10 of Operating Permit No. 0 3 02 0143.

If there are any inquiries regarding this Project Completion Report, it would be convenient and most expedient if they were directed to:

Caterpillar Tractor Co.
P. O. Box 504
Joliet, Illinois 60434
Attn: R. F. Vonachen, Plant Engineer
Phone: 815-729-5210

Very truly yours,

R F Vonachen

R. F. Vonachen

DB:maa

Att

RECEIVED

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

ENVIRONMENTAL PROTECTION AGENCY

PROJECT COMPLETION REPORT
Gas Conversion
Joliet Plant Heating Plant Boiler No. 4

FOR OFFICIAL USE ONLY
I. D. NO.
PERMIT NO.
DATE

1. NAME OF OWNER: Caterpillar Tractor Co.	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road	4. CITY: Joliet
5. NAME OF AUTHORIZED PERSON PREPARING THIS FORM: R. F. Vonachen Plant Engineer	6. SIGNATURE: R F Vonachen
7. YOUR IDENTIFICATION NUMBER: (OPTIONAL) 3C	8. DATE THIS FORM PREPARED: 1-21-74
9. OPERATING PERMIT NUMBER: (IF AVAILABLE) 0 3 02 0143	10. CONSTRUCTION PERMIT NUMBER: (IF APPLICABLE) F 3 02 004

THIS FORM MUST BE COMPLETED FOR EACH ITEM OF EQUIPMENT TO BE CONSTRUCTED OR MODIFIED IN ACCORDANCE WITH A COMPLIANCE PLAN AS DEFINED IN RULE 104, CHAPTER 2, PART 1 OF THE ILLINOIS POLLUTION CONTROL BOARD RULES AND REGULATIONS

11. DESCRIBE THE ITEM OF EQUIPMENT BEING CONSTRUCTED OR MODIFIED:
Existing coal fired boiler No. 4 at the Joliet Heating Plant is to be converted to natural gas in stages according to available natural gas commitments. Stage (1) calls for conversion of 2/3 boiler capacity to natural gas during 1973 to take advantage of a 20,000 therm commitment. The boiler will be operated as a combination fuel source until enough natural gas is available by 1975 to operate it completely on natural gas or with natural gas and low sulfur coal with an additional scrubber if necessary.

12. IDENTIFY THE LABEL OF THIS ITEM OF EQUIPMENT AS GIVEN ON THE APPLICABLE PROCESS FLOW DIAGRAM ON FILE WITH THE AGENCY:
Gas Conversion Drawing No. 13

ANSWER QUESTIONS 13 AND 14 IF THIS REPORT IS TIMED IN ACCORDANCE WITH A DATE SPECIFIED ON THE PROJECT COMPLETION SCHEDULE (APC-98).

13. IDENTIFY THE LINE IN ITEM 15, APC-98, TO WHICH THIS REPORT APPLIES:

- ☐ a. STATE DATE THE APPLICANT WILL ENTER INTO A BINDING AGREEMENT TO PURCHASE OR MODIFY THIS ITEM OF EQUIPMENT.
- ☐ b. STATE DATE THE APPLICANT WILL APPLY FOR A CONSTRUCTION PERMIT FOR THIS ITEM OF EQUIPMENT OR MODIFICATION OF EQUIPMENT.
- ☐ c. STATE DATE THIS ITEM OF EQUIPMENT WILL BE DELIVERED (IF PRESENT EQUIPMENT IS TO BE MODIFIED, STATE WHEN SUCH MODIFICATION SHALL BEGIN) TO THE APPLICANT'S FACILITY.
- ☐ d. STATE DATE CONSTRUCTION OR MODIFICATION OF EQUIPMENT WILL BE COMPLETED.
- ☐ e. STATE DATE APPLICANT WILL TEST EQUIPMENT TO DEMONSTRATE COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION ACT AND SUBSTANTIVE REGULATIONS PROMULGATED THEREUNDER.
- ☒ f. STATE DATE EQUIPMENT WILL BE FULLY OPERATIONAL.

14. ENTER THE APPLICABLE DATES FROM COLUMNS A AND B, APC-98 AND THE ACTUAL DATE ON WHICH THE ACTIVITY WAS COMPLETED:

A. 2/3 compliance	B. full compliance	C. 2/3 compliance capability
EXPECTED DATE ACTIVITY WILL BE COMPLETED: 7-1-73	LATEST DATE ACTIVITY WILL BE COMPLETED: 5-30-75	ACTUAL DATE ACTIVITY WAS COMPLETED: 1-2-74

ANSWER QUESTION 15 ONLY IF 13 AND 14 IS NOT APPLICABLE.

15. DESCRIBE ACTIVITIES DURING PAST SIX MONTHS WHICH WILL LEAD TO COMPLETION OF COMPLIANCE PROGRAM AS DESCRIBED ON FORMS APC-95 AND APC-98:

See Exhibit A next page.

0430020225

EXHIBIT A

As of January 2, 1974 the construction of the dual fuel (coal and natural gas) conversion of Boiler #4 was completed. The boiler is now capable of running on either natural gas or coal alone or on any simultaneous combination of each fuel. The use of natural gas in dual fuel Boiler #4 is presently limited to 2/3 of its operating capacity when natural gas fired Boiler #1 is operating at capacity so as not to exceed the firm daily natural gas contract demand from Northern Illinois Gas Co.

Caterpillar Tractor Co. intends to continue burning Illinois Coal only in Boiler #4 during the regular winter heating season to conserve natural gas in line with Federal Energy Office requests until May 30, 1975. After May 30, 1975 it is intended to operate dual fuel Boiler #4 either completely on natural gas or with natural gas and low sulphur coal with an additional scrubber as necessary in total compliance with the above compliance plan. Between now and May 30, 1975 when it is necessary to operate Boiler #4 in periods other than during the winter heating season, it is our intention to use natural gas within the limits of our firm gas contract demand to reduce particulate and SO_2 emissions as much as possible.

XXXXXXXXXXXXXXXXXXXXXXXX May 2, 1973

Permit Expiration Date:
November 1, 1974

CATERPILLAR TRACTOR COMPANY
Box 504
Joliet, Illinois 60434

Attention: Mr. Peter P. Donis - Plant Manager

Reference

Application No.	- 0 3 02 0143
I. D. No.	- 197 809 AAC
Received	- February 5, 1973
Operation of	- Boilers #2, #3 and #4
Location	- Channahon Road Joliet, Illinois Will County

Gentlemen:

Permit is hereby granted to operate the above-referenced equipment.

This permit is subject to the following conditions:

1. Standard conditions attached hereto and incorporated herein by reference.

2. The following special conditions:

   a. Operation is allowed during startup.

   b. Operation of the following equipment or systems is allowed during malfunction or breakdown.

      1. Boilers #2, #3 and #4.

Very truly yours,

Keith J. Conklin, P.E.
Manager, Permit Section
Division of Air Pollution Control

KJC:pg

2 Will c/d.
Channahon Rd

0 4 3 9 0 0 0 0 2 2 3

0430000245

OPERATING PERMIT
RENEWAL APPLICATION

Application No.	0 3 02 0143
ID No.	197 809 AAC
Received	Feb. 5, 1973
Operation of	Boilers #1, #2, #3,
Location	Channahon Road Joliet, Illinois Will County

Caterpillar Tractor Co. hereby applies for a renwal of our Operating Permit No. 0 3 02 0143 for our Joliet Heating Plant. It is requested that our Compliance Plan (page 93) be revised as follows:

	A Expected Date Activity will be Completed
State date construction or modification of equipment will be completed	10-1-74
State date applicant will test equipment to demonstrate compliance with environmental protection act and substantive regulations promulgated thereunder	4-1-75
State date equipment will be fully operational	5-30-75

The coal analysis and resulting emissions for Boilers #2, #3, and #4 should be revised to reflect the Southwestern Illinois Coal currently being used. The analysis of this coal appears on the attached sheet supplied by the Arch Mineral Corp. of St. Louis, Mo.

Dual fuel boiler No. 4 should be revised to show that it will be operated exclusively on firm contract natural gas after May 30, 1975.

These are the only changes in our operations covered by the above mentioned operating permit since our original application on February 5, 1973. To the best of our knowledge all other previously submitted information is current true and correct.

Caterpillar Tractor Co. Date Jan 13 '75

By _____
Plant Manager

SOUTHWESTERN ILLINOIS COAL

COAL ANALYSES

ULTIMATE ANALYSIS	TYPICAL
Moisture	10.75
Carbon	61.35
Hydrogen	5.83
Nitrogen	1.21
Chlorine	.04
Sulfur	3.90
Ash	10.67
Oxygen	6.25
Volatile	33.06
Fixed Carbon	45.52
BTU (As Rec'd)	11,076

ASH ANALYSIS	
Phos. Pentoxide	0.59
Silica	45.44
Ferric Oxide	18.28
Alumina	20.38
Lime	7.30
Magnesia	.09
Sulfur Trioxide	3.88
Potassium Oxide	1.92
Titania	1.15
Sodium Oxide	0.55
Undetermined	0.42
Grindability	50

FUSION TEMPERATURE	
Reducing I.D.	1980
Soft (H-W)	2105
Soft (H-½W)	2170
Fluid	2260

CATERPILLAR TRACTOR CO.

Joliet, Illinois 60434

January 31, 1973

Mr. Keith J. Conklin P.E.
Manager Permit Section
Division of Air Pollution Control
2200 Churchill Road
Springfield, Illinois 62706

Re: Permit Application of Caterpillar Tractor Co.
Joliet Plant Incinerators

Dear Mr. Conklin:

Enclosed please find two completed copies of our Operating Permit application for the Joliet Plant Heating Plant. Also included are two copies each of:

(2) Compliance Plans

(3) Construction Permit Applications

detailing installation plans for two SO_2 and Particulate scrubbers and one natural gas boiler conversion.

A copy of the resolution of our Board of Directors authorizing our Vice-Presidents and Plant Managers to sign all permit applications and compliance plans was submitted to your agency in October 1972.

If you have any inquiries regarding this permit application, it will be convenient if you direct them to:

Caterpillar Tractor Co.
P.O. Box 504
Joliet, Illinois 60434
Attn: R. F. Vonachen, Plant Engineer

Very truly yours,

R. F. Vonachen

R. F. Vonachen
Plant Engineer

(815) 729-5210
DB:maa

Attach

0430000148

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

OPERATING PERMIT APPLICATION

Joliet Plant Heating Plant

I.D. NO. 197809AAC
PERMIT NO. 0 3020143
DATE 02-25-76

1a. NAME OF OWNER: Caterpillar Tractor Co.	1b. NAME OF OPERATOR: Caterpillar Tractor Co.
2a. TELEPHONE NUMBER OF OWNER: 815-729-5511	2b. TELEPHONE NUMBER OF OPERATOR: 815-729-5511
3a. STREET ADDRESS OF OWNER: Box 504	3b. STREET ADDRESS OF OPERATOR: Box 504
4a. CITY OF OWNER: Joliet	4b. CITY OF OPERATOR: Joliet
5a. STATE OF OWNER: Illinois; 6a. ZIP CODE: 60434	5b. STATE OF OPERATOR: Illinois; 6b. ZIP CODE: 60434

7. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

8. TELEPHONE NO. OF DIV. OR PLANT: 815-729-5511	9. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	10. STREET ADDRESS OF EMISSION SOURCE: Channahon Road	
11. CITY: Joliet	11a. TOWNSHIP: Joliet	12. COUNTY: Will	13. ZIP CODE: 60434

0430900

THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT TO OPERATE THE EQUIPMENT DESCRIBED HEREIN AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT.

OWNER (IF INDIVIDUAL)

SIGNATURE DATE

J HTG PLNT
YOUR IDENTIFICATION NUMBER (OPTIONAL)

OWNER (IF CORPORATION OR PARTNERSHIP)

Caterpillar Tractor Co. 2-1-73
EXACT CORPORATE OR PARTNERSHIP NAME DATE

BY Peter P. Donis Plant Manager
SIGNATURE TITLE

PETER P. DONIS

OPERATOR MUST SIGN IF DIFFERENT FROM OWNER

OPERATOR (IF INDIVIDUAL)

SIGNATURE DATE

OPERATOR (IF CORPORATION OR PARTNERSHIP)

EXACT CORPORATE OR PARTNERSHIP NAME DATE

BY
SIGNATURE TITLE

The above signature authorized by a resolution of the Caterpillar Tractor Co. Board of Directors dated October 13, 1972 is already on file with your office.

IF AN OWNER OR OPERATOR IS A CORPORATION, IT MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF ITS BOARD OF DIRECTORS AUTHORIZING THE INDIVIDUALS SIGNING THE APPLICATION TO EXECUTE THIS OPERATING PERMIT APPLICATION AND TO CAUSE OR ALLOW THE CONSTRUCTION, MODIFICATION AND OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

THIS PERMIT APPLICATION CONSISTS OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-60, 1 copy, 5 pages
APC-62, 3 copies, 3 pages each
APC-62, 1 copy, 5 pages
APC-64, 2 copies, 4 pages each
APC-86, 4 copies, 4 pages each
APC-103, 1 copy, 2 pages
APC-93, 1 copy, 1 page
APC-94, 1 copy, 11 pages
APC-96, 6 copies, 1 page each
APC-95, 2 copies, 2 pages each
APC-61, 2 copies, 6 pages each
APC-103, 1 copy, 5 pages
APC-85, 1 copy, 3 pages each
APC-62, 1 copy, 3 pages each
APC-98, 2 copies, 1 page each
Addendum A, 1 copy, 1 page, SO_2 Scrubbing system
Flow diagrams, 1 copy, 12 pages, SO_2 Scrubbing system & drawings

GENERAL INFORMATION

14. The applicant shall submit a plot plan and map showing distances to the nearest boundary of the property on which the operation is located and distances to the nearest residences, lodgings, nursing homes, hospitals, schools and commercial and manufacturing establishments, and attach this plot plan and map to this application.

15. The applicant shall submit a process flow diagram depicting all emission sources and all air pollution control equipment covered by this Operating Permit application. The diagram shall include labels for each source and equipment, and shall set forth maximum flow rates for (1) all processing equipment, (2) all air pollution control equipment, (3) all emission sources and (4) all stacks and vents.

Number of sheets: 6 Drawing number(s): 10, 11, 12, 13, 14, 15

16. If the applicant is incorporating by reference previously granted Installation or Construction Permits, he shall complete Form APC-93, entitled "Previously Granted Installation or Construction Permits Incorporated by Reference."

Total number of Forms APC-93 included with this application: 1

17. For each existing emission source (other than fuel combustion sources or incinerators) not covered by a previously granted Installation or Construction Permit, the applicant shall complete Form APC-64, entitled "Data and Information for an Existing Emission Source."

Total number of Forms APC-64 included with this application: 2

18. For each existing fuel combustion source not covered by a previously granted Installation or Construction Permit, the applicant shall complete Form APC-86, entitled "Data and Information for Existing Combustion Equipment and Indirect Heating."

Total number of Forms APC-86 included with this application: 4

19. For each existing incinerator not covered by a previously granted Installation or Construction Permit, the applicant shall complete Form APC-92, entitled "Data and Information for Existing Incinerators."

Total number of Forms APC-92 included with this application: None

20. For each existing item of air pollution control equipment not covered by a previously granted Installation or Construction Permit, the applicant shall complete Form APC-62, entitled "Data and Information for Existing Air Pollution Control Equipment" (for Electrostatic Precipitators use Form APC-90, entitled "Data and Information for Existing Electrostatic Precipitators").

Total number of Forms APC-62 included with this application: 4

Total number of Forms APC-90 included with this application: _____

21. If the startup of any emission source covered by this application produces contaminants which exceed the applicable emission standards, the applicant shall complete Section "A" of Form APC-94, entitled "Operation During Malfunctions, Breakdowns, or Startups."

Total number of Forms APC-94 included with this application: 1

22. If the applicant is applying for permission to operate any emission source during malfunctions or breakdowns pursuant to Chapter 2, Rule 105, he shall complete Section "B" of Form APC-94, entitled "Operation During Malfunctions, Breakdowns, or Startups."

Total number of Forms APC-94 included with this application: 1

23. If all or any part of the manufacturing process which is the subject of this Operating Permit application must be controlled or otherwise modified to comply with applicable substantive Regulations, the applicant shall complete Form APC-95, entitled "Compliance Plan." (2) Compliance Plans submitted.

24. Does the operation covered by this application require an Episode Action Plan? ☒ YES ☐ NO

If "Yes", give the date such plan was filed with the Agency (if it has not been filed, the applicant shall complete Form APC-100, entitled "Episode Action Plan").

Date Plan submitted: 2-19-71

25. State whether each of the applicant's emission sources covered by this application was, as of April 14, 1972, operating within the applicable limitations of the "Rules and Regulations Governing the Control of Air Pollution," adopted by the former Air Pollution Control Board and continued effective pursuant to Section 49(c) of the Environmental Protection Act.

For each such emission source in compliance as of April 14, 1972, state the basis for your conclusions and attach your statements as Exhibit B.

To the best of our knowledge, these sources are in compliance with the former rules & regulations.

For each such emission source not in compliance as of April 14, 1972, state the basis for your conclusions and attach your statements as Exhibit C.

Total number of pages in Exhibit B: None

Total number of pages in Exhibit C: None

26. Was the applicant's operation the subject of a variance petition filed with the Illinois Pollution Control Board on or before June 13, 1972? ☐ Yes ☒ No

If "Yes", cite PCB number(s): _____ Date of Board Order: _____

State whether the applicant had, on or before April 14, 1972, commenced construction of equipment or modifications sufficient to achieve compliance with the applicable limitations of the "Rules and Regulations Governing the Control of Air Pollution," adopted by the former Air Pollution Control Board and continued effective pursuant to Section 49(c) of the Environmental Protection Act.

☐ Yes ☐ No

If "No", explain in detail and attach your explanation as Exhibit D.

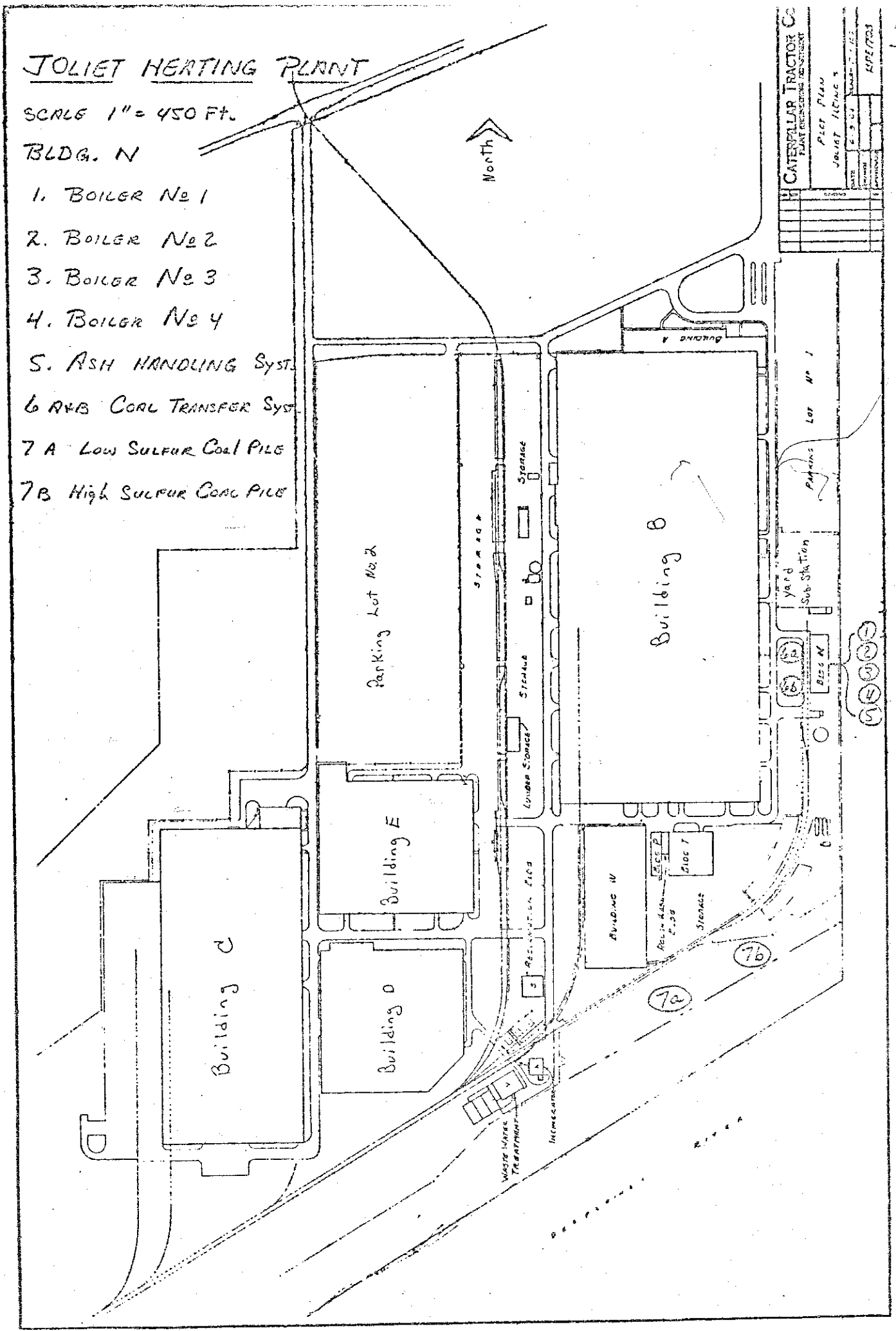
Total number of pages in Exhibit D: _____

JOLIET HEATING PLANT

SCALE 1" = 450 Ft.

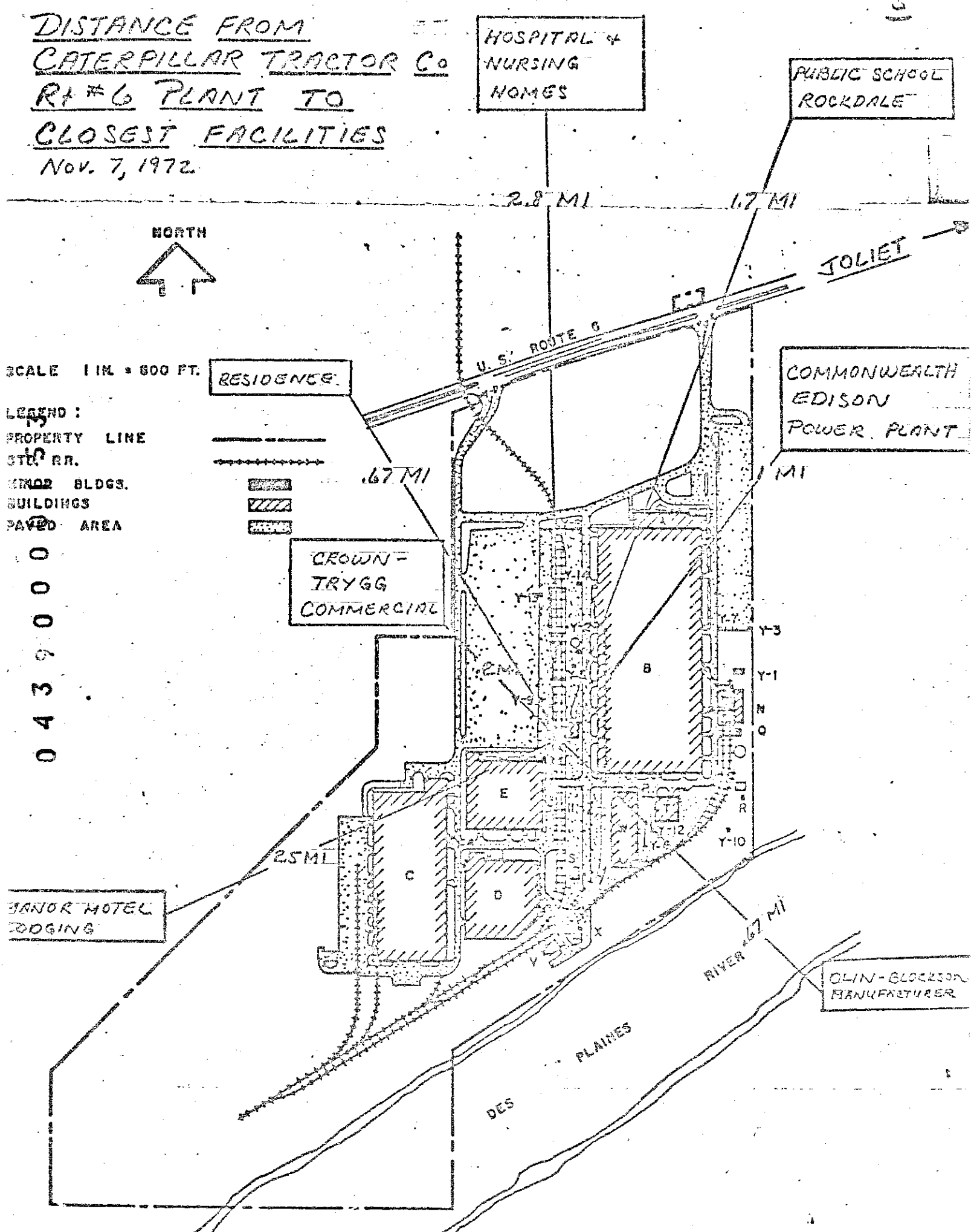
BLDG. N

1. BOILER No 1
2. BOILER No 2
3. BOILER No 3
4. BOILER No 4
5. ASH HANDLING SYST.
6. R+B COAL TRANSFER SYST.
7 A LOW SULFUR COAL PILE
7B HIGH SULFUR COAL PILE



DISTANCE FROM CATERPILLAR TRACTOR Co Rt #6 PLANT TO CLOSEST FACILITIES

Nov. 7, 1972.



STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

PREVIOUSLY GRANTED INSTALLATION
OR
CONSTRUCTIONS PERMITS INCORPORATED
BY REFERENCE

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. 0
DATE

1. NAME OF OWNER: Caterpillar Tractor Co.
2. NAME OF CORPORATE DIVISION OR PLANT: Caterpillar Tractor Co. Joliet Plant
3. STREET ADDRESS OF EMISSION SOURCE: Box 504 (Channahon Road)
4. CITY: Joliet
5. DATE FORM APC-93 PREPARED: November 14, 1972

PERMIT NUMBER	ARE THE DATA AND INFORMATION PREVIOUSLY SUBMITTED TRUE, CORRECT, AND CURRENT?*		HAVE ALL CONDITIONS OF THE PERMIT BEEN COMPLIED WITH?**		YOUR IDENTIFICATION (OPTIONAL)
54 Application #F 2 06 008 I.D. #197 045 AAF	[X] YES	[ ] NO	[X] YES	[ ] NO	
0	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
0 CE 72 013 ID #295900	[X] YES	[ ] NO	[X] YES	[ ] NO	
0	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
0	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
0	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
0	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
3	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
4	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
0	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
	[ ] YES	[ ] NO	[ ] YES	[ ] NO	
	[ ] YES	[ ] NO	[ ] YES	[ ] NO	

* IF "NO" COMPLETE CONSTRUCTION PERMIT APPLICATIONS AS APPLICABLE.

** IF "NO" EXPLAIN IN DETAIL AND MARK EXPLANATION AS EXHIBIT A.

TOTAL NUMBER OF PAGES IN EXHIBIT A: _____

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION
FOR EXISTING COMBUSTION EQUIPMENT
AND
INDIRECT HEATING

Joliet Plant Heating Plant Boiler No. 1, MJ1311

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. F
DATE

1a. NAME OF OWNER: Caterpillar Tractor Co.

1b. NAME OF OPERATOR: Caterpillar Tractor Co.

2a. STREET ADDRESS OF OWNER: Box 504

2b. STREET ADDRESS OF OPERATOR: Box 504

3a. CITY OF OWNER: Joliet

3b. CITY OF OPERATOR: Joliet

4a. STATE OF OWNER: Illinois

4b. ZIP CODE: 60434

5a. STATE OF OPERATOR: Illinois

5b. ZIP CODE: 60434

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO

8. STREET ADDRESS OF EMISSION SOURCE: Channahon Road

9a. CITY: Joliet

9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO

10. COUNTY: Will

11. ZIP CODE: 60434

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☒ NO Boiler was installed - gas fired conversion was not.

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☒ NO Gas fired conversion

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-86, 1 copy, 3 pages Boiler No. 1
Flow diagram Drawing No. 10

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F | | | | | | | |

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) AND PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. BOILER MANUFACTURER: Springfield (Cleaver Brooks)
15. MODEL NUMBER: Max W.P. 200
16. SERIAL NUMBER: 50191A
17. OPERATION TIME OF BOILER: 24 HRS/DAY 7 DAYS/WK 52 WKS/YR
18. PERCENT OF ANNUAL THROUGHPUT: DEC-FEB 25 % MAR-MAY 25 % JUNE-AUG 25 % SEPT-NOV 25 %
19. RATED HEAT INPUT: 100,000 THOUSAND BTU/HR
20. TOTAL COST OF HEATING EQUIPMENT (NOT INCLUDING INSTALLATION): $ N/A
21. OPERATING PRESSURE OF BOILER: 150 PSIG
22. PERCENT CAPACITY USED FOR SPACE HEATING: 75 %

GAS FIRED UNITS RT = (Boiler Hp) 8 CFM / Furnace Volume

23. GAS BURNER MANUFACTURER & MODEL NUMBER: 2 - Cleaver Brooks WT700XCN2
24. BURNER VOLUME: 3660 FT^3
25. RETENTION TIME: 5.07 SEC
26. MAXIMUM FIRING RATE: Input 110,000 SCFH
27. AVERAGE FIRING RATE: 100,000 SCFH
28. AVERAGE HEAT CONTENT: 1000 BTU/FT^3
29. AVERAGE SULFUR CONTENT: 0 % BY WT
30. EST. ANNUAL CONSUMPTION: 730,000,000 SCF
31. EXCESS AIR: 20 % BY VOL

OIL FIRED UNITS

32. OIL BURNER MANUFACTURER & MODEL NUMBER:
33. BURNER VOLUME: FT^3
34. RETENTION TIME: SEC
35. MAXIMUM FIRING RATE: THOUSAND BTU/HR
36. AVERAGE FIRING RATE: THOUSAND BTU/HR
37. TYPE OF OIL:
38. EST. ANNUAL CONSUMPTION: LB
39. AVERAGE HEAT CONTENT OF OIL: BTU/LB
40. EXCESS AIR: % BY VOL
41. AVERAGE SULFUR CONTENT: % BY WT
42. AVERAGE ASH CONTENT: % BY WT
43. OIL BURNER TYPE: ☐ ATOMIZING ☐ STEAM OR AIR ATOMIZING ☐ OTHER SPECIFY
44. DIRECTION OF FIRING: ☐ HORIZONTAL ☐ TANGENTIAL
45. OIL BURNER CONTROL: ☐ MANUAL ☐ AUTOMATIC ON-OFF ☐ AUTOMATIC HIGH-LOW ☐ AUTOMATIC FULL MODULATION

COAL FIRED UNITS

46. TYPE OF COAL: ☐ BITUMINOUS ☐ ANTHRACITE ☐ OTHER SPECIFY
47. AVERAGE SULFUR CONTENT: % BY WT
48. AVERAGE ASH CONTENT: % BY WT
49. MAXIMUM FIRING RATE: THOUSAND BTU/HR
50. AVERAGE FIRING RATE: THOUSAND BTU/HR
51. VOLATILE CONTENTS: % BY WT
52. EXCESS AIR: % BY WT
53. MAXIMUM SULFUR CONTENT: % BY WT
54. MOISTURE CONTENT: % BY WT
55. AVERAGE HEAT VALUE: BTU/LB
56. IDENTIFY SOURCE OF COAL BY MINE AND SEAM:
57. ANNUAL CONSUMPTION: TONS/YR
58. TYPE OF FIRING:
a. ☐ PULVERIZED DRY BOTTOM c. ☐ CYCLONE e. ☐ SPREADER ____ % REINJECTION
b. ☐ PULVERIZED WET BOTTOM d. ☐ SPREADER NO REINJECTION f. ☐ OTHER SPECIFY
59. DIRECTION OF FIRING: ☐ HORIZONTAL ☐ VERTICAL ☐ TANGENTIAL ☐ CORNER ☐ OTHER SPECIFY

I.D. NO. | | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F | | | | | | | |

EXHAUST GAS ANALYSIS
(PRIOR TO PASSAGE THROUGH ANY CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT		CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
60.	CARBON MONOXIDE	a. 180 PPM	b. LB/10^6BTU	c. Max @ 50% excess air	d. Colormetric per manufacturer
61.	CARBON DIOXIDE	a. PPM	b. LB/10^6BTU	c.	d.
62.	CHLORINE	a. PPM	b. LB/10^6BTU	c.	d.
63.	HYDROCARBONS AS CH_4	a. PPM	b. .004 LB/10^6BTU	c. Calculated U.S. AP-42	d.
64.	HYDROGEN CHLORIDE	a. PPM	b. LB/10^6BTU	c.	d.
65.	HYDROGEN SULFIDE	a. PPM	b. LB/10^6BTU	c.	d.
66.	NITROGEN	a. PPM	b. LB/10^6BTU	c.	d.
67.	NITROGEN OXIDES AS NO_2	a. PPM	b. .2 LB/10^6BTU	c. Max - per manufacturer	d.
68.	SULFUR DIOXIDE	a. PPM	b. None LB/10^6BTU	c.	d.
69.	OTHER (SPECIFY)	a. PPM	b. LB/10^6BTU	c.	d.
70.	PARTICULATE MATTER	a. GRAIN/SCF	b. .0017 LB/10^6BTU	c. Calculated US AP-42	d.

71. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

72. HOW EMISSIONS ARE EXHAUSTED: ☒ STACK ☐ VENT

73. GAS EXIT VELOCITY: 48.8 FPS

74. GAS EXIT TEMPERATURE: 450 °F

75. DRAFT CONTROLS: ☐ MANUAL ☒ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY)

76. DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDARY OF THE APPLICANT: 60 FT.

77. HEIGHT OF STACK OR VENT ABOVE GRADE: 78 FT.

78. HEIGHT OF STACK OR VENT ABOVE ROOF: 30 FT.

79. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: 74 FT.

80. YOUR DESIGNATION OF STACK:

81. AREA OF STACK OR VENT AT EXIT: 5' Dia. 19.65 FT^2

82. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

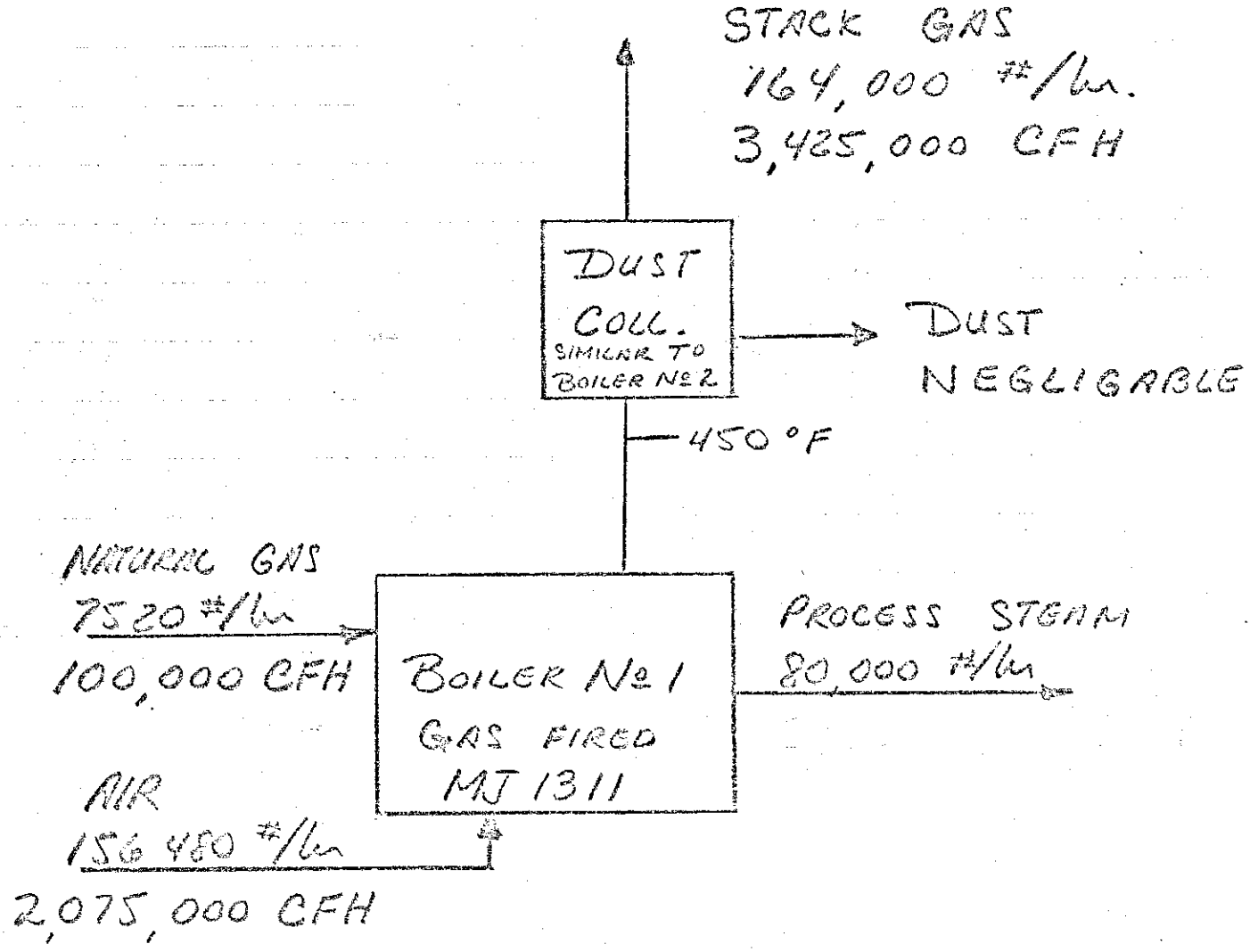
TOTAL NUMBER OF PAGES IN EXHIBIT G: None

83. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT. 321.7 Acres

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	144.9 LB	SULFUR DIOXIDE	1496.8 LB	NITROGEN OXIDES AS NO_2	295.6 LB
HYDROCARBONS AS CH_4	161.9 LB	CARBON MONOXIDE	222.9 LB	Chromic Oxide	1.87 LB

FLOW DIAGRAM

DRAWING No 10



SPRINGFIELD BOILER 80 000 #/hr
CLEAVER BROOKS GAS CONVERSION 2-CN2
BOILER No 1 MJ 1311
CATERPILLAR TRACTOR Co.
DECEMBER 15, 1972

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION
FOR EXISTING COMBUSTION EQUIPMENT
AND
INDIRECT HEATING

Joliet Heating Plant Boiler No. 2, MJ1312

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO. F

DATE

1a. NAME OF OWNER: Caterpillar Tractor Co.	1b. NAME OF OPERATOR: Caterpillar Tractor Co.
2a. STREET ADDRESS OF OWNER: Box 504	2b. STREET ADDRESS OF OPERATOR: Box 504
3a. CITY OF OWNER: Joliet	3b. CITY OF OPERATOR: Joliet
4a. STATE OF OWNER: Illinois; 4b. ZIP CODE: 60434	5a. STATE OF OPERATOR: Illinois; 5b. ZIP CODE: 60434

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	8. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
9a. CITY: Joliet; 9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	10. COUNTY: Will; 11. ZIP CODE: 60434

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

0 4 3 0 0 0 1 0 9

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-86, 1 copy, 3 pages, Boiler No. 2
APC-62, 1 copy, 3 pages, Boiler No. 2
Flow Diagram, 1 copy, 1 page, Drawing No. 11, Boiler No. 2

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F | | | | | | | |

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) AND PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. BOILER MANUFACTURER: Springfield (Cleaver Brooks)
15. MODEL NUMBER: Max W.P. 200
16. SERIAL NUMBER: 50191B
17. OPERATION TIME OF BOILER: 24 HRS/DAY 7 DAYS/WK 17 WKS/YR
18. PERCENT OF ANNUAL THROUGHPUT: DEC-FEB 75 % MAR-MAY 25 % JUNE-AUG ___ % SEPT-NOV ___ %
19. RATED HEAT INPUT: 100,000 THOUSAND BTU/HR
20. TOTAL COST OF HEATING EQUIPMENT (NOT INCLUDING INSTALLATION): $ N/A
21. OPERATING PRESSURE OF BOILER: 150 PSIG
22. PERCENT CAPACITY USED FOR SPACE HEATING: 75 %

GAS FIRED UNITS

23. GAS BURNER MANUFACTURER & MODEL NUMBER:
24. BURNER VOLUME: FT^3
25. RETENTION TIME: SEC
26. MAXIMUM FIRING RATE: SCFH
27. AVERAGE FIRING RATE: SCFH
28. AVERAGE HEAT CONTENT: BTU/FT^3
29. AVERAGE SULFUR CONTENT: % BY WT
30. EST. ANNUAL CONSUMPTION: SCF
31. EXCESS AIR: % BY VOL

OIL FIRED UNITS

32. OIL BURNER MANUFACTURER & MODEL NUMBER:
33. BURNER VOLUME: FT^3
34. RETENTION TIME: SEC
35. MAXIMUM FIRING RATE: THOUSAND BTU/HR
36. AVERAGE FIRING RATE: THOUSAND BTU/HR
37. TYPE OF OIL:
38. EST. ANNUAL CONSUMPTION: LB
39. AVERAGE HEAT CONTENT OF OIL: BTU/LB
40. EXCESS AIR: % BY VOL
41. AVERAGE SULFUR CONTENT: % BY WT
42. AVERAGE ASH CONTENT: % BY WT
43. OIL BURNER TYPE: ☐ ATOMIZING ☐ STEAM OR AIR ATOMIZING ☐ OTHER SPECIFY _____
44. DIRECTION OF FIRING: ☐ HORIZONTAL ☐ TANGENTIAL
45. OIL BURNER CONTROL: ☐ MANUAL ☐ AUTOMATIC ON-OFF ☐ AUTOMATIC HIGH-LOW ☐ AUTOMATIC FULL MODULATION

COAL FIRED UNITS

46. TYPE OF COAL: ☒ BITUMINOUS ☐ ANTHRACITE ☐ OTHER SPECIFY _____
47. AVERAGE SULFUR CONTENT: 2.6 % BY WT
48. AVERAGE ASH CONTENT: 5.9 % BY WT
49. MAXIMUM FIRING RATE: Input 110,000 THOUSAND BTU/HR
50. AVERAGE FIRING RATE: Input 100,000 THOUSAND BTU/HR
51. VOLATILE CONTENTS: 38.6 % BY WT
52. EXCESS AIR: 40 % BY WT
53. MAXIMUM SULFUR CONTENT: 2.6 - 2.8 % BY WT
54. MOISTURE CONTENT: 14.4 % BY WT
55. AVERAGE HEAT VALUE: 11,419 BTU/LB
56. IDENTIFY SOURCE OF COAL BY MINE AND SEAM: Peabody, Wilmington, Ill. 1 washed
57. ANNUAL CONSUMPTION: Approx 6000 TONS/YR
58. TYPE OF FIRING:
a. ☐ PULVERIZED DRY BOTTOM
b. ☐ PULVERIZED WET BOTTOM
c. ☐ CYCLONE
d. ☒ SPREADER NO REINJECTION
e. ☐ SPREADER ___ % REINJECTION
f. ☐ OTHER SPECIFY _____
59. DIRECTION OF FIRING: ☒ HORIZONTAL ☐ VERTICAL ☐ TANGENTIAL ☐ CORNER ☐ OTHER SPECIFY _____

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F | | | | | | |

EXHAUST GAS ANALYSIS
(PRIOR TO PASSAGE THROUGH ANY CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
60. CARBON MONOXIDE	a. PPM	b. .0874 LB/10^6BTU	c. Calculated US AP - 42	d.
61. CARBON DIOXIDE	a. PPM	b. LB/10^6BTU	c.	d.
62. CHLORINE	a. PPM	b. LB/10^6BTU	c.	d.
63. HYDROCARBONS AS CH_4	a. PPM	b. .0437 LB/10^6BTU	c. Calculated US AP-42	d.
64. HYDROGEN CHLORIDE	a. PPM	b. LB/10^6BTU	c.	d.
65. HYDROGEN SULFIDE	a. PPM	b. LB/10^6BTU	c.	d.
66. NITROGEN	a. PPM	b. LB/10^6BTU	c.	d.
67. NITROGEN OXIDES AS NO_2	a. PPM	b. .655 LB/10^6BTU	c. Calculated US AP-42	d.
68. SULFUR DIOXIDE	a. PPM	b. 4.32 LB/10^6BTU	c. Calculated US AP-42	d.
69. OTHER (SPECIFY)	a. PPM	b. LB/10^6BTU	c.	d.
70. PARTICULATE MATTER	a. GRAIN/SCF	b. 3.36 LB/10^6BTU	c. Calculated US AP-42	d.

71. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal Flyash 100%

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

72. HOW EMISSIONS ARE EXHAUSTED: ☐ STACK ☐ VENT	73. GAS EXIT VELOCITY: FPS	74. GAS EXIT TEMPERATURE: ^{0}F
75. DRAFT CONTROLS: ☐ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY)		
76. DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDARY OF THE APPLICANT: FT.	77. HEIGHT OF STACK OR VENT ABOVE GRADE: FT.	
78. HEIGHT OF STACK OR VENT ABOVE ROOF: FT.	79. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: FT.	
80. YOUR DESIGNATION OF STACK:	81. AREA OF STACK OR VENT AT EXIT: FT^2	

82. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

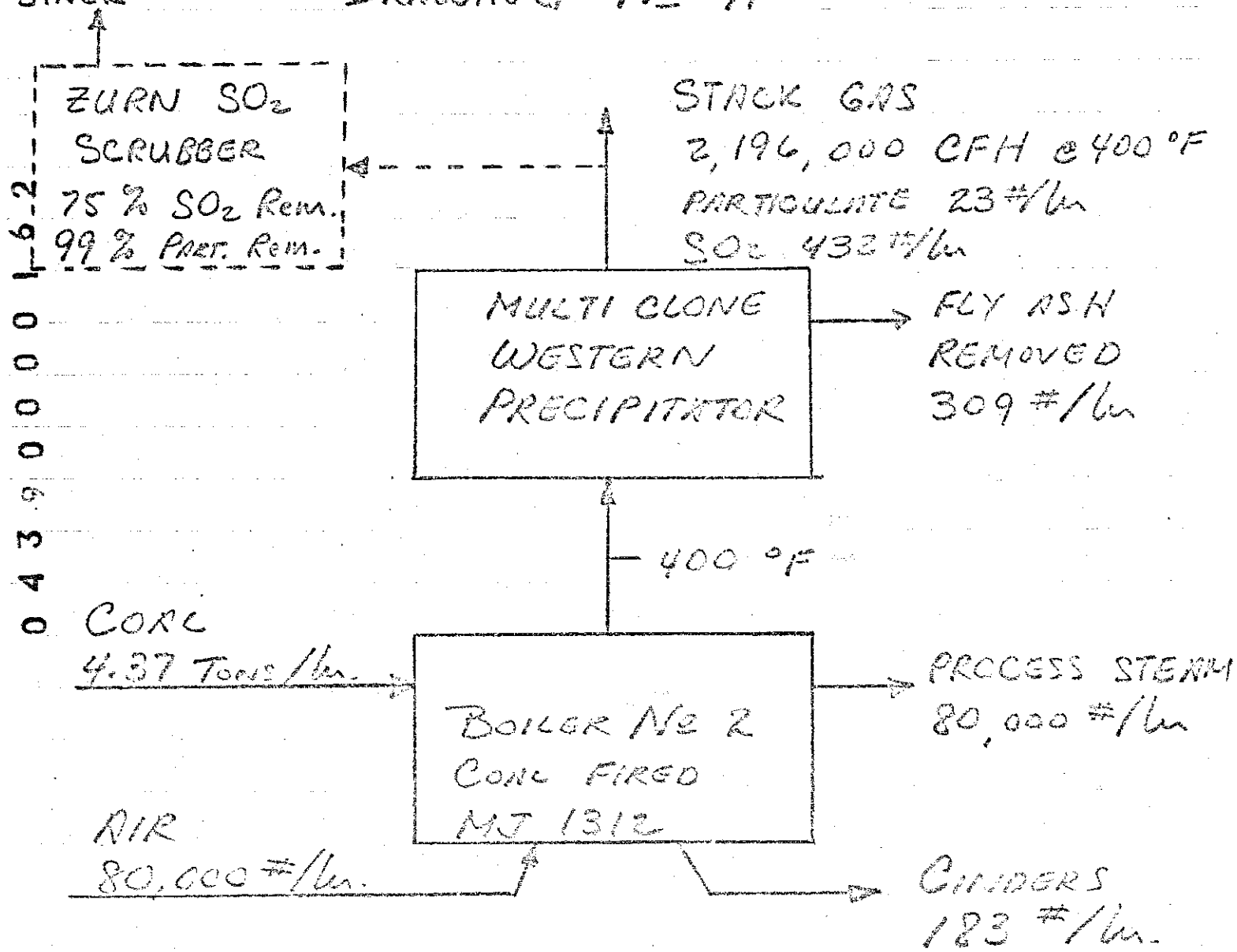
TOTAL NUMBER OF PAGES IN EXHIBIT G: _____

83. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	_____ LB	SULFUR DIOXIDE	_____ LB	NITROGEN OXIDES AS NO_2	_____ LB
HYDROCARBONS AS CH_4	_____ LB	CARBON MONOXIDE	_____ LB		

FLOW DIAGRAM

DRAWING No 11



SPRINGFIELD BOILER 80 000 #/hr
BOILER No 2 MJ 1312
CATERPILLAR TRACTOR Co.
DECEMBER 19, 1972

REPEAT ORDERS tell the story

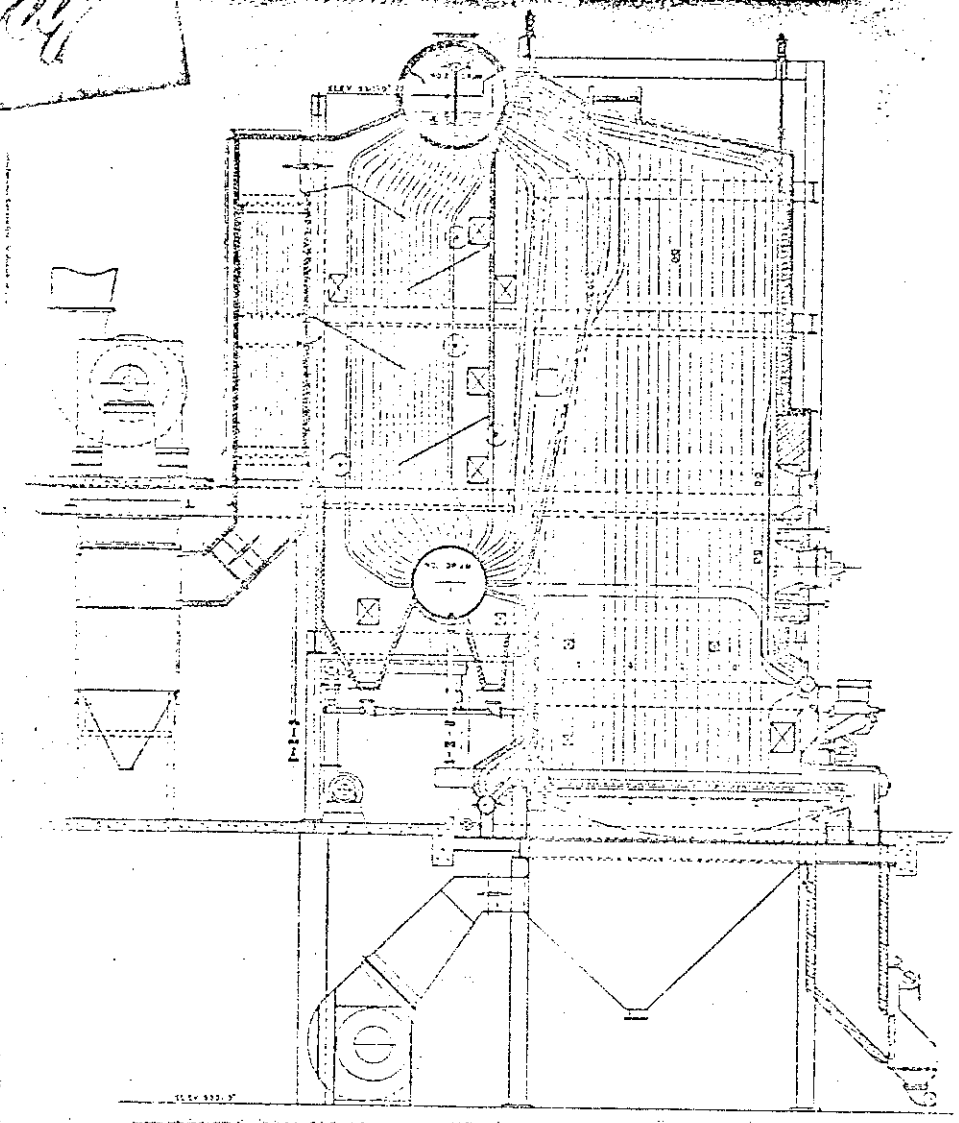
...of complete satisfaction!

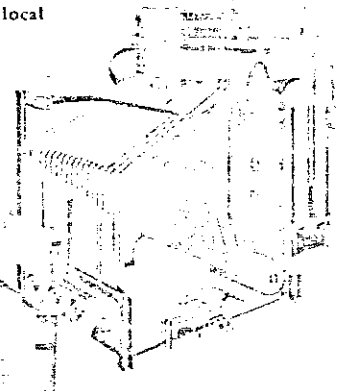
Again CATERPILLAR TRACTOR CO. is getting additional Springfield Steam Generating Units—this time for the company's Tractor Plant at Joliet, Illinois. They add 160,000 lbs. of capacity to the four units previously installed in Peoria.

"Caterpillar" is one of the many leading American industrial organizations that have placed their seal of approval on Springfield with REPEAT ORDERS.* *For Steam Generating Units that "are built to stay modern longer," check with Springfield now!*

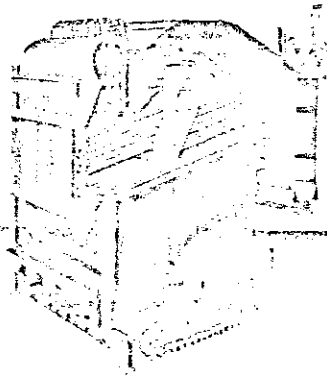
Springfield Boiler Co. specializes in the production of a complete range of steam generating equipment... ANY SIZE... ANY PRESSURE... ANY TEMPERATURE... AND FOR ANY FUEL. Springfield is organized to apply the same engineering skill to all contracts, large or small. We will be glad to submit a proposal covering your requirements.

*For a complete list, see your local Springfield Representative.





Check with Your Consulting Engineer on Modernization and New Plant Projects



2 New Springfield Units

The above drawing shows the arrangement of the two new Springfield units for the Joliet, Illinois, plant of Caterpillar Tractor Co.

UNIT CAPACITY—80,000 lbs. per hour, continuous; 90,000 lbs. per hour, two hour peak at 150 psig saturated.

DESIGN EFFICIENCY—82.85% at 80,000 lbs.; 82.2% at 90,000 lbs.

FIRING—American Engineering Co. Spreader Stokers. One unit equipped with auxiliary gas burners.

AUXILIARIES—Springfield Economizer, Dust Collector, Forced and Induced Draft Fans, Controls.

SPRINGFIELD BOILER CO.

1953 E. Capitol Ave., Springfield, Illinois, U.S.A.

Worldwide Sales and Service

See Our Catalog in SWEET'S

BENT TUBE BOILERS • STRAIGHT TUBE BOILERS • SUPERHEATERS • DESUPERHEATERS • AIR HEATERS
ECONOMIZERS • WATERWALLS • PACKAGE BOILERS • COMPLETE STEAM GENERATING UNITS

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION
FOR EXISTING
AIR POLLUTION CONTROL EQUIPMENT

Joliet Heating Plant Boiler No. 2, MJ1312

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. C
DATE

1a. NAME OF OWNER: Caterpillar Tractor Co.		1b. NAME OF OPERATOR: Caterpillar Tractor Co.	
2a. STREET ADDRESS OF OWNER: Box 504		2b. STREET ADDRESS OF OPERATOR: Box 504	
3a. CITY OF OWNER: Joliet		3b. CITY OF OPERATOR: Joliet	
4a. STATE OF OWNER: Illinois	4b. ZIP CODE: 60434	5a. STATE OF OPERATOR: Illinois	5b. ZIP CODE: 60434

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO		8. STREET ADDRESS OF EMISSION SOURCE: Channahon Road	
9a. CITY: Joliet	9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	10. COUNTY: Will	11. ZIP CODE: 60434

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

0430600000

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-62, 1 copy, 3 pages, Boiler No. 2
Flow Diagram, 1 copy, 1 page, Boiler No. 2, Drawing No. 11

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY | PERMIT APPLICATION NO. C | | | | | | | |

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPMENT
14. TYPE OF CONTROL EQUIPMENT: (e.g., MULTICLONE, BAGHOUSE)	a. Multiclone	b.	c.
15. MANUFACTURER:	a. Western Precipitator	b.	c.
16. MODEL:	a. Type 9VG12 Mod. P21337A	b.	c.
17. SERIAL NUMBER:	a. Size 65-5 Ser. No. 1999	b.	c.
18. COST OF CONTROL EQUIPMENT: (NOT INCLUDING INSTALLATION)	a. $	b. $	c. $
19. INLET GAS RATE (CFM AT INLET TEMPERATURE & PRESSURE):	a. 36,200 CFM	b. CFM	c. CFM
20. INLET GAS RATE (AT STANDARD CONDITIONS):	a. SCFM	b. SCFM	c. SCFM
21. INLET TEMPERATURE (AT POINT OF INLET GAS RATE MEASUREMENT):	a. 410 °F	b. °F	c. °F
22. EXHAUST GAS RATE (CFM AT EXHAUST TEMPERATURE & PRESSURE):	a. CFM	b. CFM	c. CFM
23. EXHAUST TEMPERATURE (AT POINT OF EXHAUST GAS RATE MEASUREMENT):	a. °F	b. °F	c. °F
24. DUCT VELOCITY (AT POINT OF INLET GAS RATE MEASUREMENT):	a. FPS	b. FPS	c. FPS
25. INLET GRAIN LOADING (AT POINT OF INLET GAS RATE MEASUREMENT):	a. GRS/SCF	b. GRS/SCF	c. GRS/SCF
26. GEOMETRIC MEAN DIAMETER OF PARTICULATE MATTER:	a. MICRON	b. MICRON	c. MICRON
27. STANDARD GEOMETRIC DEVIATION OF DISTRIBUTION OF PARTICLE SIZE BY WEIGHT:	a.	b.	c.
28. INLET CONCENTRATION BY VOLUME % OF GASEOUS CONTAMINANTS IN THE TOTAL GAS STREAM. (NEED NOT SUBMIT THIS INFORMATION IF FORM APC-63 IS SUBMITTED):	a.	b.	c.
29. PRESSURE DROP:	a. 2.4 INCHES OF WATER	b. INCHES OF WATER	c. INCHES OF WATER
30. CONTROL EQUIPMENT EFFICIENCY:	a. 93 ☐ VOL % ☒ WT %	b. ☐ VOL % ☐ WT %	c. ☐ VOL % ☐ WT %
31. EXHAUST GAS DEW POINT:	a. °F	b. °F	c. °F

32. AVERAGE OPERATION TIME OF CONTROL EQUIPMENT: 24 HRS/DAY 7 DAYS/WK 17 WKS/YR

33. PERCENT OF ANNUAL THRUPUT: DEC-FEB 75% MAR-MAY 25 % JUNE-AUG - % SEPT-NOV - %

I.D. NO. | | | | | | | | | | FOR OFFICIAL USE ONLY | C | | | | | | | |

EXHAUST

89. EXHAUST GAS FROM CONTROL EQUIPMENT IS VENTED TO: ☐ INSIDE BUILDING ☒ ATMOSPHERE ☐ OTHER (SPECIFY): _____

90. YOUR DESIGNATION OF STACK OR VENT: Boiler House Stack No. 2

91. HOW EMISSIONS ARE EXHAUSTED: ☒ STACK ☐ VENT

92. GAS EXIT VELOCITY: Est. 29.75 FPS

93. GAS EXIT TEMPERATURE: 400 °F

94. DRAFT CONTROLS: ☒ MANUAL ☒ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY) _____

95. HEIGHT OF STACK OR VENT ABOVE GRADE: 78 ft.

97. HEIGHT OF STACK OR VENT ABOVE ROOF: 30 FT

98. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: 74 FT

99. STACK OR VENT SERVES: ☒ ONLY THIS EQUIPMENT ☐ OTHER EQUIPMENT

100. AREA OF STACK OR VENT AT EXIT: 19.65 FT^2

101. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE NATURE AND QUANTITY OF THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: None

102. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT. 321.7 Acres

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	144.9 LB	SULFUR DIOXIDE	1496.8 LB	NITROGEN OXIDES AS NO_2	295.6 LB
HYDROCARBONS AS CH_4	161.9 LB	CARBON MONOXIDE	222.9 LB	Chromic Oxide	1.87#

EXHAUST GAS ANALYSIS

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
104. CARBON DIOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
105. CARBON MONOXIDE	a. PPM	b. .0874 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP-42	d.
106. CHLORINE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
107. HYDROCARBONS AS CH_4	a. PPM	b. .0437 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP-42	d.
108. HYDROGEN CHLORIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
109. HYDROGEN SULFIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
110. NITROGEN	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
111. NITROGEN OXIDES AS NO_2	a. PPM	b. .655 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP-42	d.
112. SULFUR DIOXIDE	a. PPM	b. 4.32 ☒ LB/10^6BTU ☐ LB/HR	c.	d.
113. OTHER (SPECIFY)	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
114. PARTICULATE MATTER	a. GRAIN/SCF	b. .235 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP-42	d.

115. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal Flyash 100%

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION
FOR EXISTING COMBUSTION EQUIPMENT
AND
INDIRECT HEATING

Joliet Heating Plant Boiler No. 3, MJ1313

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. F
DATE

1a. NAME OF OWNER: Caterpillar Tractor Co.	1b. NAME OF OPERATOR: Caterpillar Tractor Co.
2a. STREET ADDRESS OF OWNER: Box 504	2b. STREET ADDRESS OF OPERATOR: Box 504
3a. CITY OF OWNER: Joliet	3b. CITY OF OPERATOR: Joliet
4a. STATE OF OWNER: Illinois; 4b. ZIP CODE: 60434	5a. STATE OF OPERATOR: Illinois; 5b. ZIP CODE: 60434

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	8. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
9a. CITY: Joliet; 9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	10. COUNTY: Will; 11. ZIP CODE: 60434

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-86, 1 copy, 3 pages, Boiler No. 3
Flow Diagram, 1 copy, 1 page, Boiler No. 3, Drawing No. 12
APC-62, 1 copy, 3 pages, Boiler No. 3

I.D. NO. [| | | | | | | |] FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F [| | | | | | |]

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) AND PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. BOILER MANUFACTURER: Springfield (Cleaver-Brooks)
15. MODEL NUMBER: Max W.P. 200
16. SERIAL NUMBER: 51115
17. OPERATION TIME OF BOILER: 24 HRS/DAY 7 DAYS/WK 17 WKS/YR
18. PERCENT OF ANNUAL THROUGHPUT: DEC-FEB 25 % MAR-MAY 25 % JUNE-AUG ___ % SEPT-NOV ___ %
19. RATED HEAT INPUT: 125,000 THOUSAND BTU/HR
20. TOTAL COST OF HEATING EQUIPMENT (NOT INCLUDING INSTALLATION): $ N.A
21. OPERATING PRESSURE OF BOILER: 150 PSIG
22. PERCENT CAPACITY USED FOR SPACE HEATING: 75 %

GAS FIRED UNITS

23. GAS BURNER MANUFACTURER & MODEL NUMBER:
24. BURNER VOLUME: FT^3
25. RETENTION TIME: SEC
26. MAXIMUM FIRING RATE: SCFH
27. AVERAGE FIRING RATE: SCFH
28. AVERAGE HEAT CONTENT: BTU/FT^3
29. AVERAGE SULFUR CONTENT: % BY WT
30. EST. ANNUAL CONSUMPTION: SCF
31. EXCESS AIR: % BY VOL

OIL FIRED UNITS

32. OIL BURNER MANUFACTURER & MODEL NUMBER:
33. BURNER VOLUME: FT^3
34. RETENTION TIME: SEC
35. MAXIMUM FIRING RATE: THOUSAND BTU/HR
36. AVERAGE FIRING RATE: THOUSAND BTU/HR
37. TYPE OF OIL:
38. EST. ANNUAL CONSUMPTION: LB
39. AVERAGE HEAT CONTENT OF OIL: BTU/LB
40. EXCESS AIR: % BY VOL
41. AVERAGE SULFUR CONTENT: % BY WT
42. AVERAGE ASH CONTENT: % BY WT
43. OIL BURNER TYPE: ☐ ATOMIZING ☐ STEAM OR AIR ATOMIZING ☐ OTHER SPECIFY
44. DIRECTION OF FIRING: ☐ HORIZONTAL ☐ TANGENTIAL
45. OIL BURNER CONTROL: ☐ MANUAL ☐ AUTOMATIC ON-OFF ☐ AUTOMATIC HIGH-LOW ☐ AUTOMATIC FULL MODULATION

COAL FIRED UNITS

46. TYPE OF COAL: ☒ BITUMINOUS ☐ ANTHRACITE ☐ OTHER SPECIFY
47. AVERAGE SULFUR CONTENT: 2.6 % BY WT
48. AVERAGE ASH CONTENT: 5.9 % BY WT
49. MAXIMUM FIRING RATE: Input 137,000 THOUSAND BTU/HR
50. AVERAGE FIRING RATE: Input 125,000 THOUSAND BTU/HR
51. VOLATILE CONTENTS: 38.6 % BY WT
52. EXCESS AIR: 40 % BY WT
53. MAXIMUM SULFUR CONTENT: 2.6 - 2.8 % BY WT
54. MOISTURE CONTENT: 14.4 % BY WT
55. AVERAGE HEAT VALUE: 11419 BTU/LB
56. IDENTIFY SOURCE OF COAL BY MINE AND SEAM: Peabody-Wilmington, Ill. 1" washed
57. ANNUAL CONSUMPTION: 8,000 TONS/YR
58. TYPE OF FIRING:
a. ☐ PULVERIZED DRY BOTTOM
b. ☐ PULVERIZED WET BOTTOM
c. ☐ CYCLONE
d. ☒ SPREADER NO REINJECTION
e. ☐ SPREADER ___ % REINJECTION
f. ☐ OTHER SPECIFY
59. DIRECTION OF FIRING: ☒ HORIZONTAL ☐ VERTICAL ☐ TANGENTIAL ☐ CORNER ☐ OTHER SPECIFY

I.D. NO. | | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F | | | | | | | |

EXHAUST GAS ANALYSIS
(PRIOR TO PASSAGE THROUGH ANY CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
60. CARBON MONOXIDE	a. PPM	b. .0874 LB/10^6BTU	c. Calculated US AP-42	d.
61. CARBON DIOXIDE	a. PPM	b. LB/10^6BTU	c.	d.
62. CHLORINE	a. PPM	b. LB/10^6BTU	c.	d.
63. HYDROCARBONS AS CH_4	a. PPM	b. .0437 LB/10^6BTU	c. Calculated US AP-42	d.
64. HYDROGEN CHLORIDE	a. PPM	b. LB/10^6BTU	c.	d.
65. HYDROGEN SULFIDE	a. PPM	b. LB/10^6BTU	c.	d.
66. NITROGEN	a. PPM	b. LB/10^6BTU	c.	d.
67. NITROGEN OXIDES AS NO_2	a. PPM	b. .655 LB/10^6BTU	c. Calculated US AP-42	d.
68. SULFUR DIOXIDE	a. PPM	b. 4.32 LB/10^6BTU	c. Calculated US AP-42	d.
69. OTHER (SPECIFY)	a. PPM	b. LB/10^6BTU	c.	d.
70. PARTICULATE MATTER	a. GRAIN/SCF	b. 3.36 LB/10^6BTU	c. Calculated US AP-42	d.

71. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal Flyash 100%

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

72. HOW EMISSIONS ARE EXHAUSTED: ☐ STACK ☐ VENT

73. GAS EXIT VELOCITY: FPS

74. GAS EXIT TEMPERATURE: ^oF

75. DRAFT CONTROLS: ☐ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY)_____

76. DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDARY OF THE APPLICANT: FT.

77. HEIGHT OF STACK OR VENT ABOVE GRADE: FT.

78. HEIGHT OF STACK OR VENT ABOVE ROOF: FT.

79. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: FT.

80. YOUR DESIGNATION OF STACK:

81. AREA OF STACK OR VENT AT EXIT: FT^2

82. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

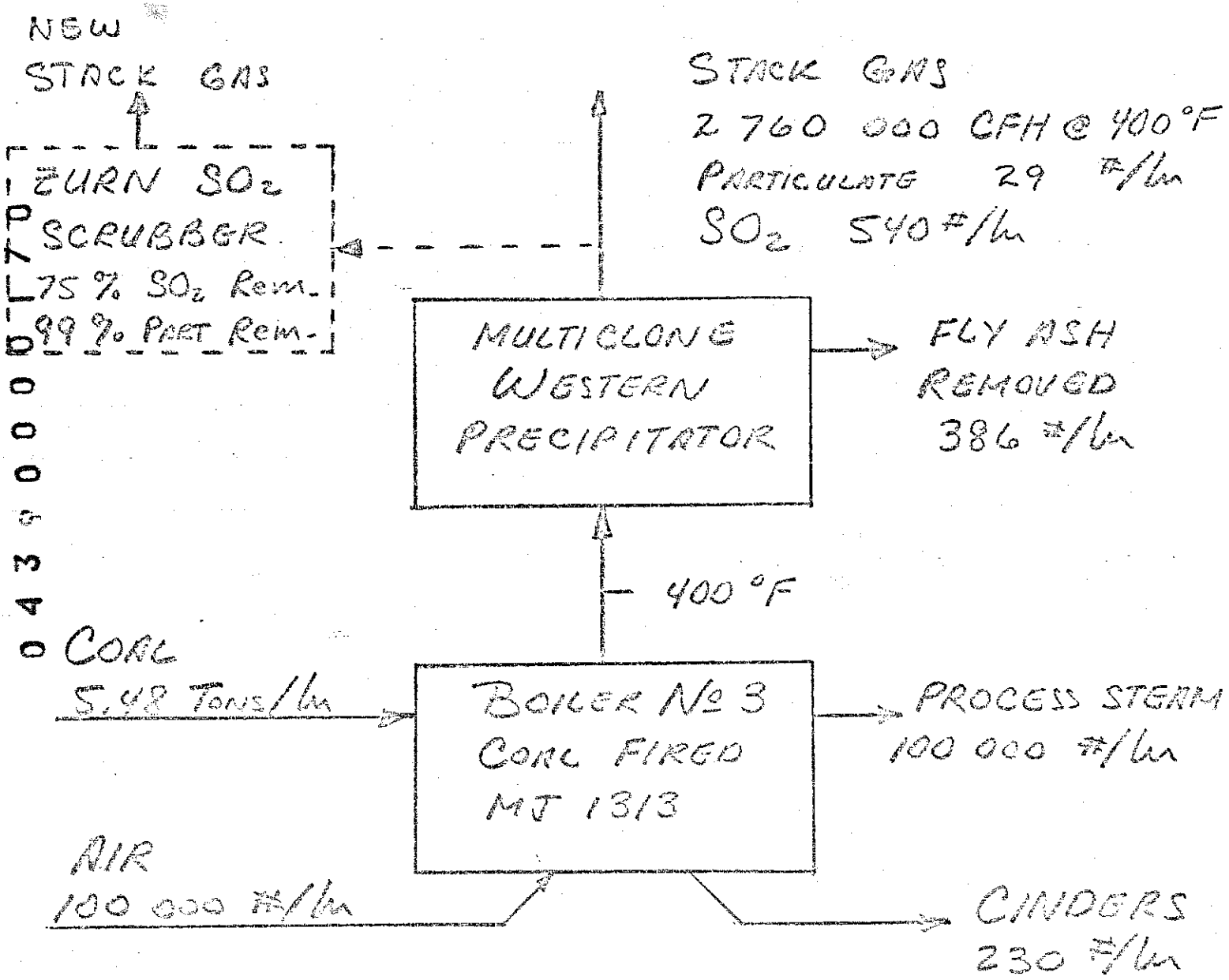
TOTAL NUMBER OF PAGES IN EXHIBIT G:_____

83. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	_____ LB	SULFUR DIOXIDE	_____ LB	NITROGEN OXIDES AS NO_2	_____ LB
HYDROCARBONS AS CH_4	_____ LB	CARBON MONOXIDE	_____ LB		

FLOW DIAGRAM

DRAWING No 12



SPRINGFIELD BOILER 100 000 #/hr
BOILER No 3 MJ 1313
CATERPILLAR TRACTOR Co.
December 22, 1972

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION
FOR EXISTING
AIR POLLUTION CONTROL EQUIPMENT

Joliet Heating Plant Boiler No. 3, MJ1313

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. C
DATE

1a. NAME OF OWNER: Caterpillar Tractor Co.	1b. NAME OF OPERATOR: Caterpillar Tractor Co.
2a. STREET ADDRESS OF OWNER: Box 504	2b. STREET ADDRESS OF OPERATOR: Box 504
3a. CITY OF OWNER: Joliet	3b. CITY OF OPERATOR: Joliet
4a. STATE OF OWNER: Illinois; 4b. ZIP CODE: 60434	5a. STATE OF OPERATOR: Illinois; 5b. ZIP CODE: 60434

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	8. STREET ADDRESS OF EMISSION SOURCE: Channahon
9a. CITY: Joliet; 9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	10. COUNTY: Will; 11. ZIP CODE: 60434

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-62, 1 copy, 3 pages, Boiler No. 3
Flow Diagram, 1 copy, 1 page, Boiler No. 3, Drawing No. 12

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY | PERMIT APPLICATION NO. C | | | | | | | |

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN,ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS,NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPMENT
14. TYPE OF CONTROL EQUIPMENT: (e.g., MULTICLONE, BAGHOUSE)	a. Multiclone	b.	c.
15. MANUFACTURER:	a. Western Precipitator	b.	c.
16. MODEL:	a. Type 9VG12 Mod. P21340 AD	b.	c.
17. SERIAL NUMBER:	a. Size 80-5 Ser. No. 2340	b.	c.
18. COST OF CONTROL EQUIPMENT: (NOT INCLUDING INSTALLATION)	a. $	b. $	c. $
19. INLET GAS RATE (CFM AT INLET TEMPERATURE & PRESSURE):	a. 45,300 CFM	b. CFM	c. CFM
20. INLET GAS RATE (AT STANDARD CONDITIONS):	a. SCFM	b. SCFM	c. SCFM
21. INLET TEMPERATURE (AT POINT OF INLET GAS RATE MEASUREMENT):	a. 410 °F	b. °F	c. °F
22. EXHAUST GAS RATE (CFM AT EXHAUST TEMPERATURE & PRESSURE):	a. CFM	b. CFM	c. CFM
23. EXHAUST TEMPERATURE (AT POINT OF EXHAUST GAS RATE MEASUREMENT):	a. °F	b. °F	c. °F
24. DUCT VELOCITY (AT POINT OF INLET GAS RATE MEASUREMENT):	a. FPS	b. FPS	c. FPS
25. INLET GRAIN LOADING (AT POINT OF INLET GAS RATE MEASUREMENT):	a. GRS/SCF	b. GRS/SCF	c. GRS/SCF
26. GEOMETRIC MEAN DIAMETER OF PARTICULATE MATTER:	a. MICRON	b. MICRON	c. MICRON
27. STANDARD GEOMETRIC DEVIATION OF DISTRIBUTION OF PARTICLE SIZE BY WEIGHT:	a.	b.	c.
28. INLET CONCENTRATION BY VOLUME % OF GASEOUS CONTAMINANTS IN THE TOTAL GAS STREAM. (NEED NOT SUBMIT THIS INFORMATION IF FORM APC-63 IS SUBMITTED):	a.	b.	c.
29. PRESSURE DROP:	a. 2.4 INCHES OF WATER	b. INCHES OF WATER	c. INCHES OF WATER
30. CONTROL EQUIPMENT EFFICIENCY:	a. 93 ☐ VOL % ☒ WT %	b. ☐ VOL % ☐ WT %	c. ☐ VOL % ☐ WT %
31. EXHAUST GAS DEW POINT:	a. °F	b. °F	c. °F

32. AVERAGE OPERATION TIME OF CONTROL EQUIPMENT: 24 HRS/DAY 7 DAYS/WK 17 WKS/YR

33. PERCENT OF ANNUAL THRUPUT: DEC-FEB 75 % MAR-MAY 25 % JUNE-AUG % SEPT-NOV %

I.D. NO. | | | | | | | | | | FOR OFFICIAL USE ONLY C | | | | | | | |

EXHAUST

89. EXHAUST GAS FROM CONTROL EQUIPMENT IS VENTED TO: ☐ INSIDE BUILDING ☒ ATMOSPHERE ☐ OTHER (SPECIFY): _____

90. YOUR DESIGNATION OF STACK OR VENT: Boiler House Stack No. 3

91. HOW EMISSIONS ARE EXHAUSTED: ☒ STACK ☐ VENT

92. GAS EXIT VELOCITY: 39 FPS

93. GAS EXIT TEMPERATURE: 400 °F

94. DRAFT CONTROLS: ☒ MANUAL ☒ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY) _____

95. HEIGHT OF STACK OR VENT ABOVE GRADE: 78

97. HEIGHT OF STACK OR VENT ABOVE ROOF: 30 FT

98. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: 74 FT

99. STACK OR VENT SERVES: ☒ ONLY THIS EQUIPMENT ☐ OTHER EQUIPMENT

100. AREA OF STACK OR VENT AT EXIT: 19.65 FT^2

101. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE NATURE AND QUANTITY OF THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: None

102. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT. 321.7 Acres

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	144.9 LB	SULFUR DIOXIDE	1496.8 LB	NITROGEN OXIDES AS NO_2	295.6 LB
HYDROCARBONS AS CH_4	161.9 LB	CARBON MONOXIDE	222.9 LB	Chromic Oxide	1.87#

EXHAUST GAS ANALYSIS

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
104. CARBON DIOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
105. CARBON MONOXIDE	a. PPM	b. .0874 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP - 42	d.
106. CHLORINE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
107. HYDROCARBONS AS CH_4	a. PPM	b. .0437 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP - 42	d.
108. HYDROGEN CHLORIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
109. HYDROGEN SULFIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
110. NITROGEN	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
111. NITROGEN OXIDES AS NO_2	a. PPM	b. .655 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP-42	d.
112. SULFUR DIOXIDE	a. PPM	b. 4.32 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP-42	d.
113. OTHER (SPECIFY)	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
114. PARTICULATE MATTER	a. GRAIN/SCF	b. .235 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP-42	d.

115. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal Flyash 100%

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION FOR EXISTING COMBUSTION EQUIPMENT AND INDIRECT HEATING

Joliet Heating Plant Boiler No. 4, MJ3598

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO. F

DATE

1a. NAME OF OWNER: Caterpillar Tractor Co.	1b. NAME OF OPERATOR: Caterpillar Tractor Co.
2a. STREET ADDRESS OF OWNER: Box 504	2b. STREET ADDRESS OF OPERATOR: Box 504
3a. CITY OF OWNER: Joliet	3b. CITY OF OPERATOR: Joliet
4a. STATE OF OWNER: Illinois — 4b. ZIP CODE: 60434	5a. STATE OF OPERATOR: Illinois — 5b. ZIP CODE: 60434

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	8. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
9a. CITY: Joliet — 9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	10: COUNTY: Will — 11. ZIP CODE: 60434

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-86, 1 copy, 3 pages, Boiler No. 4
Flow Diagram, 1 copy, 1 page, Boiler No. 4, Drawing No. 13
APC-62, 1 copy, 3 pages, Boiler No. 4

I.D. NO. [| | | | | | | |]

FOR OFFICIAL USE ONLY

PERMIT APPLICATION NO. F [| | | | | | |]

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) AND PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. BOILER MANUFACTURER: Erie City

15. MODEL NUMBER: 100,000 #/hr

16. SERIAL NUMBER: 97035

17. OPERATION TIME OF BOILER: 24 HRS/DAY 7 DAYS/WK 36 WKS/YR

18. PERCENT OF ANNUAL THROUGHPUT: DEC-FEB 50 % MAR-MAY 25 % JUNE-AUG ___ % SEPT-NOV 25 %

19. RATED HEAT INPUT: 125,000 THOUSAND BTU/HR

20. TOTAL COST OF HEATING EQUIPMENT (NOT INCLUDING INSTALLATION): $ N/A

21. OPERATING PRESSURE OF BOILER: 150 PSIG

22. PERCENT CAPACITY USED FOR SPACE HEATING: 75 %

GAS FIRED UNITS

23. GAS BURNER MANUFACTURER & MODEL NUMBER:

24. BURNER VOLUME: FT^3

25. RETENTION TIME: SEC

26. MAXIMUM FIRING RATE: SCFH

27. AVERAGE FIRING RATE: SCFH

28. AVERAGE HEAT CONTENT: BTU/FT^3

29. AVERAGE SULFUR CONTENT: % BY WT

30. EST. ANNUAL CONSUMPTION: SCF

31. EXCESS AIR: % BY VOL

OIL FIRED UNITS

32. OIL BURNER MANUFACTURER & MODEL NUMBER:

33. BURNER VOLUME: FT^3

34. RETENTION TIME: SEC

35. MAXIMUM FIRING RATE: THOUSAND BTU/HR

36. AVERAGE FIRING RATE: THOUSAND BTU/HR

37. TYPE OF OIL:

38. EST. ANNUAL CONSUMPTION: LB

39. AVERAGE HEAT CONTENT OF OIL: BTU/LB

40. EXCESS AIR: % BY VOL

41. AVERAGE SULFUR CONTENT: % BY WT

42. AVERAGE ASH CONTENT: % BY WT

43. OIL BURNER TYPE: ☐ ATOMIZING ☐ STEAM OR AIR ATOMIZING ☐ OTHER SPECIFY ____

44. DIRECTION OF FIRING: ☐ HORIZONTAL ☐ TANGENTIAL

45. OIL BURNER CONTROL: ☐ MANUAL ☐ AUTOMATIC ON-OFF ☐ AUTOMATIC HIGH-LOW ☐ AUTOMATIC FULL MODULATION

COAL FIRED UNITS

46. TYPE OF COAL: ☐ BITUMINOUS ☐ ANTHRACITE ☐ OTHER SPECIFY ____

47. AVERAGE SULFUR CONTENT: 2.6 % BY WT

48. AVERAGE ASH CONTENT: 5.9 % BY WT

49. MAXIMUM FIRING RATE: Input 137,000 THOUSAND BTU/HR

50. AVERAGE FIRING RATE: Input 125,000 THOUSAND BTU/HR

51. VOLATILE CONTENTS: 38.6 % BY WT

52. EXCESS AIR: 40 % BY WT

53. MAXIMUM SULFUR CONTENT: 2.6-2.8 % BY WT

54. MOISTURE CONTENT: 14.4 % BY WT

55. AVERAGE HEAT VALUE: 11419 BTU/LB

56. IDENTIFY SOURCE OF COAL BY MINE AND SEAM: Peabody-Wilmington, Ill. 1" washed

57. ANNUAL CONSUMPTION: 16,500 TONS/YR

58. TYPE OF FIRING:

a. ☐ PULVERIZED DRY BOTTOM
b. ☐ PULVERIZED WET BOTTOM
c. ☐ CYCLONE
d. ☒ SPREADER NO REINJECTION
e. ☐ SPREADER ____ % REINJECTION
f. ☐ OTHER SPECIFY ____

59. DIRECTION OF FIRING: ☒ HORIZONTAL ☐ VERTICAL ☐ TANGENTIAL ☐ CORNER ☐ OTHER SPECIFY ____

I.D. NO. [ ] FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F [ ]

EXHAUST GAS ANALYSIS
(PRIOR TO PASSAGE THROUGH ANY CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

	CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
60.	CARBON MONOXIDE	a. PPM	b. .0874 LB/10^6BTU	c. Calculated U.S. AP - 42	d.
61.	CARBON DIOXIDE	a. PPM	b. LB/10^6BTU	c.	d.
62.	CHLORINE	a. PPM	b. LB/10^6BTU	c.	d.
63.	HYDROCARBONS AS CH_4	a. PPM	b. .0437 LB/10^6BTU	c. Calculated U.S. AP - 42	d.
64.	HYDROGEN CHLORIDE	a. PPM	b. LB/10^6BTU	c.	d.
65.	HYDROGEN SULFIDE	a. PPM	b. LB/10^6BTU	c.	d.
66.	NITROGEN	a. PPM	b. LB/10^6BTU	c.	d.
67.	NITROGEN OXIDES AS NO_2	a. PPM	b. .655 LB/10^6BTU	c. Calculated U.S. AP - 42	d.
68.	SULFUR DIOXIDE	a. PPM	b. 4.32 LB/10^6BTU	c. Calculated U.S. AP - 42	d.
69.	OTHER (SPECIFY)	a. PPM	b. LB/10^6BTU	c.	d.
70.	PARTICULATE MATTER	a. GRAIN/SCF	b. 3.36 LB/10^6BTU	c. Calculated U.S. AP - 42	d.

71. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal Flyash 100%

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

72.	HOW EMISSIONS ARE EXHAUSTED: ☐ STACK ☐ VENT	73. GAS EXIT VELOCITY: FPS	74. GAS EXIT TEMPERATURE: ^oF
75.	DRAFT CONTROLS: ☐ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY)		
76.	DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDARY OF THE APPLICANT: FT.	77. HEIGHT OF STACK OR VENT ABOVE GRADE: FT.	
78.	HEIGHT OF STACK OR VENT ABOVE ROOF: FT.	79. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: FT.	
80.	YOUR DESIGNATION OF STACK:	81. AREA OF STACK OR VENT AT EXIT: FT^2	

82. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

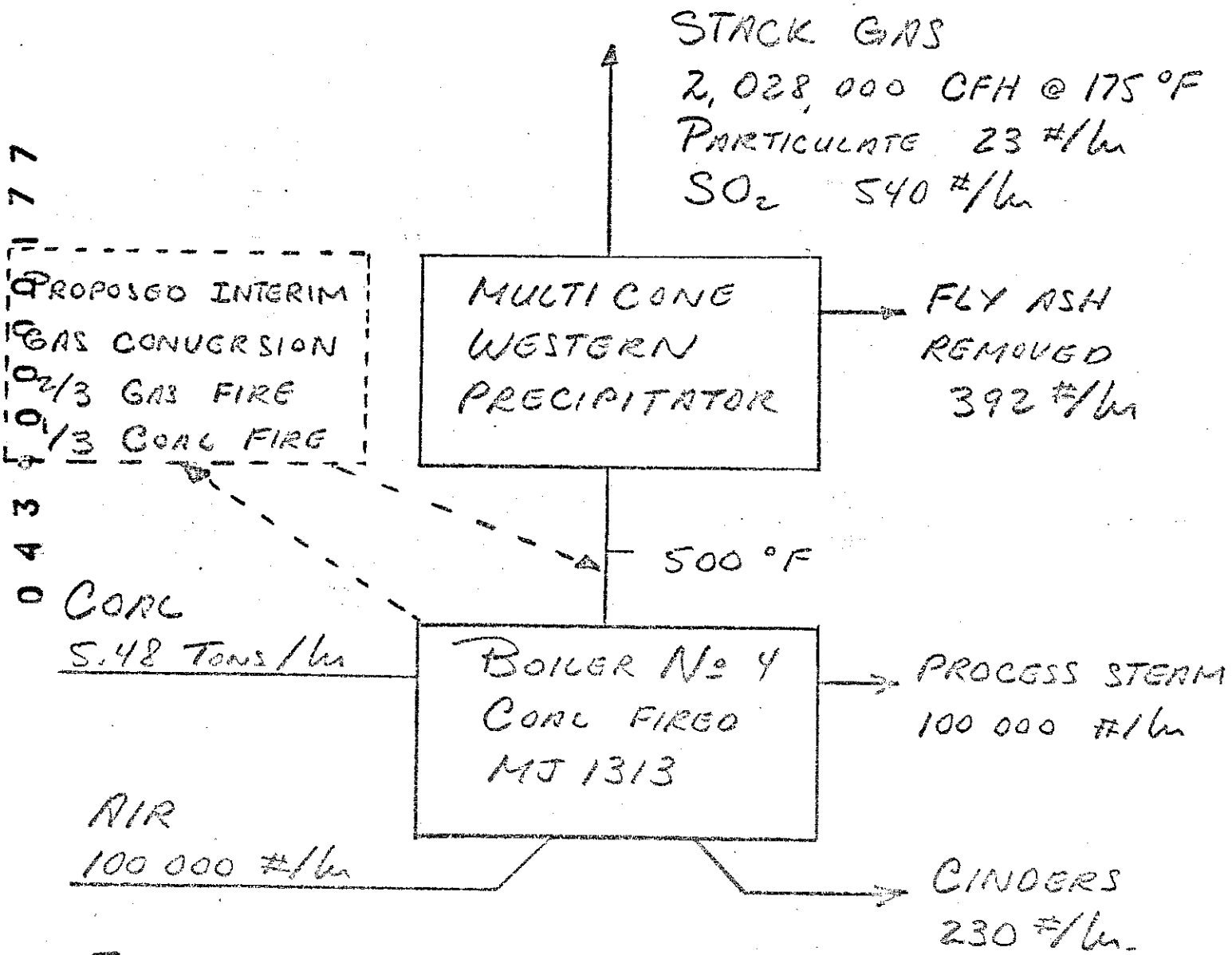
TOTAL NUMBER OF PAGES IN EXHIBIT G: _____

83. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	_____ LB	SULFUR DIOXIDE	_____ LB	NITROGEN OXIDES AS NO_2	_____ LB
HYDROCARBONS AS CH_4	_____ LB	CARBON MONOXIDE	_____ LB		

FLOW DIAGRAM

DRAWING Nº 13



ERIE CITY BOILER 100 000 #/hr
BOILER Nº 4 MJ 3598
CATERPILLAR TRACTOR Co
December 22, 1972

0 4 3 0 0 1 1 7 7

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION
FOR EXISTING
AIR POLLUTION CONTROL EQUIPMENT

Joliet Heating Plant Boiler No. 4, MJ3598

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. C
DATE

1a. NAME OF OWNER: Caterpillar Tractor Co.		1b. NAME OF OPERATOR: Caterpillar Tractor Co.	
2a. STREET ADDRESS OF OWNER: Box 504		2b. STREET ADDRESS OF OPERATOR: Box 504	
3a. CITY OF OWNER: Joliet		3b. CITY OF OPERATOR: Joliet	
4a. STATE OF OWNER: Illinois	4b. ZIP CODE: 60434	5a. STATE OF OPERATOR: Illinois	5b. ZIP CODE: 60434

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO		8. STREET ADDRESS OF EMISSION SOURCE:	
9a. CITY: Joliet	9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	10. COUNTY: Will	11. ZIP CODE: 60434

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-62, 1 copy, 3 pages, Boiler No. 2
Flow Diagram, 1 copy, 1 page, Boiler No. 2, Drawing No. 13

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. C | | | | | | | |

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPMENT
14. TYPE OF CONTROL EQUIPMENT: (e.g., MULTICLONE, BAGHOUSE)	a. Multiclone	b. Multiclone	c.
15. MANUFACTURER:	a. Western Precipitator	b. Western Precipitator	c.
16. MODEL:	a. Type 9VGR14 Model P-111136B	b. Type 9VGR10T	c.
17. SERIAL NUMBER:	a. Size 65-5 4474	b. Size 4-1	c.
18. COST OF CONTROL EQUIPMENT: (NOT INCLUDING INSTALLATION)	a. $	b. $	c. $
19. INLET GAS RATE (CFM AT INLET TEMPERATURE & PRESSURE):	a. 48,000 CFM	b. CFM	c. CFM
20. INLET GAS RATE (AT STANDARD CONDITIONS):	a. SCFM	b. SCFM	c. SCFM
21. INLET TEMPERATURE (AT POINT OF INLET GAS RATE MEASUREMENT):	a. 510 °F	b. °F	c. °F
22. EXHAUST GAS RATE (CFM AT EXHAUST TEMPERATURE & PRESSURE):	a. CFM	b. CFM	c. CFM
23. EXHAUST TEMPERATURE (AT POINT OF EXHAUST GAS RATE MEASUREMENT):	a. °F	b. °F	c. °F
24. DUCT VELOCITY (AT POINT OF INLET GAS RATE MEASUREMENT):	a. FPS	b. FPS	c. FPS
25. INLET GRAIN LOADING (AT POINT OF INLET GAS RATE MEASUREMENT):	a. GRS/SCF	b. GRS/SCF	c. GRS/SCF
26. GEOMETRIC MEAN DIAMETER OF PARTICULATE MATTER:	a. MICRON	b. MICRON	c. MICRON
27. STANDARD GEOMETRIC DEVIATION OF DISTRIBUTION OF PARTICLE SIZE BY WEIGHT:	a.	b.	c.
28. INLET CONCENTRATION BY VOLUME % OF GASEOUS CONTAMINANTS IN THE TOTAL GAS STREAM. (NEED NOT SUBMIT THIS INFORMATION IF FORM APC-63 IS SUBMITTED):	a.	b.	c.
29. PRESSURE DROP:	a. 2.32 INCHES OF WATER	b. INCHES OF WATER	c. INCHES OF WATER
30. CONTROL EQUIPMENT EFFICIENCY: Total system	a. 94.6 ☐ VOL % ☒ WT %	b. ☐ VOL % ☐ WT %	c. ☐ VOL % ☐ WT %
31. EXHAUST GAS DEW POINT:	a. °F	b. °F	c. °F

32. AVERAGE OPERATION TIME OF CONTROL EQUIPMENT: 24 HRS/DAY 7 DAYS/WK 36 WKS/YR

33. PERCENT OF ANNUAL THRUPUT: DEC-FEB 50 % MAR-MAY 25 % JUNE-AUG % SEPT-NOV 25 %

I.D. NO. | | | | | | | | | | FOR OFFICIAL USE ONLY C | | | | | | | |

EXHAUST

89. EXHAUST GAS FROM CONTROL EQUIPMENT IS VENTED TO: ☐ INSIDE BUILDING ☒ ATMOSPHERE ☐ OTHER (SPECIFY): _____

90. YOUR DESIGNATION OF STACK OR VENT: Boiler House Stack No. 4

91. HOW EMISSIONS ARE EXHAUSTED: ☒ STACK ☐ VENT

92. GAS EXIT VELOCITY: 27.6 FPS

93. GAS EXIT TEMPERATURE: 175 °F

94. DRAFT CONTROLS: ☒ MANUAL ☒ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY) _____

95. HEIGHT OF STACK OR VENT ABOVE GRADE: 78

97. HEIGHT OF STACK OR VENT ABOVE ROOF: 30 FT

98. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: 74 FT

99. STACK OR VENT SERVES: ☒ ONLY THIS EQUIPMENT ☐ OTHER EQUIPMENT

100. AREA OF STACK OR VENT AT EXIT: 19.65 FT^2

101. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE NATURE AND QUANTITY OF THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: None

102. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT. 321.7 Acres

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	144.9 LB	SULFUR DIOXIDE	1496.8 LB	NITROGEN OXIDES AS NO_2	295.6 LB
HYDROCARBONS AS CH_4	161.9 LB	CARBON MONOXIDE	222.9 LB	Chromic Oxide	1.87#

EXHAUST GAS ANALYSIS

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
104. CARBON DIOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
105. CARBON MONOXIDE	a. PPM	b. .0874 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP - 42	d.
106. CHLORINE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
107. HYDROCARBONS AS CH_4	a. PPM	b. .0437 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP - 42	d.
108. HYDROGEN CHLORIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
109. HYDROGEN SULFIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
110. NITROGEN	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
111. NITROGEN OXIDES AS NO_2	a. PPM	b. .655 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP - 42	d.
112. SULFUR DIOXIDE	a. PPM	b. 4.32 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP - 42	d.
113. OTHER (SPECIFY)	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
114. PARTICULATE MATTER	a. GRAIN/SCF	b. .188 ☒ LB/10^6BTU ☐ LB/HR	c. Calculated U.S. AP - 42	d.

115. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal Flyash 100%

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION FOR EXISTING EMISSION SOURCE

Joliet Heating Plant Fly & Grate Ash Collection System

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO. C

DATE

1a. NAME OF OWNER: Caterpillar Tractor Co.	1b. NAME OF OPERATOR: Caterpillar Tractor Co.
2a. STREET ADDRESS OF OWNER: Box 504	2b. STREET ADDRESS OF OPERATOR: Box 504
3a. CITY OF OWNER: Joliet	3b. CITY OF OPERATOR: Joliet
4a. STATE OF OWNER: Illinois; 4b. ZIP CODE: 60434	5a. STATE OF OPERATOR: Illinois; 5b. ZIP CODE: 60434

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	8. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
9a. CITY: Joliet; 9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	10. COUNTY: Will; 11. ZIP CODE: 60434

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

0 4 3 6 0 0 0 1 8 2

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-64, 1 copy, 3 pages Fly & Grate Ash Collection System
Flow Diagram, 1 copy, 1 page, Fly & Grate Ash Collection System Drawing No 14
APC-103, 1 copy, 2 pages, Fly & Grate Ash Disposal
APC-62, 1 copy, 5 pages, Fly & Grate Ash Collection System

I.D. NO. | FOR OFFICIAL USE ONLY | PER. APPLICATION NO. S

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:

1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORM FOR EACH EMISSION SOURCE NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE), PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE EMISSION SOURCE IS LOCATED AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. NAME OF PROCESS: Fly & Grate Ash Collection & Disposal System	15. NAME OF EMISSION SOURCE EQUIPMENT: Steam - Vacuum Ash Handling System
16. EMISSION SOURCE EQUIPMENT MANUFACTURER: Beaumont Birch Co.	17. MODEL NUMBER: Contract No. / 18. SERIAL NUMBER: CR-14634
19. NUMBER OF IDENTICAL EMISSION SOURCES: None	20. TYPE PROCESS: ☐ CONTINUOUS ☒ BATCH
21. PROCESS WEIGHT RATE: 30,000 LB/HR	22. BATCH RATE: 2 BATCH/HR 30,000 LB/HR

23. COMPOSITION OF RAW MATERIALS USED IN THE PROCESS AND PERCENT OF EACH BY WEIGHT (COMMON NAME SHOULD BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Process steam
Boiler house collected fly & grate ash.

24. NAME OF PRODUCTS MANUFACTURED:	MAXIMUM PRODUCTION RATE FOR EACH PRODUCT:	ESTIMATED AVERAGE PRODUCTION RATE OF EACH PRODUCT:
a. None	b. ____ LB/HR	c. ____ LB/HR
d. ____	e. ____ LB/HR	f. ____ LB/HR
g. ____	h. ____ LB/HR	i. ____ LB/HR

25. WASTE MATERIALS FROM MANUFACTURING PROCESS:	MAXIMUM AMOUNT OF WASTE MATERIALS PRODUCED.	ESTIMATED AVERAGE AMOUNT OF WASTE MATERIALS PRODUCED.
a. Fly Ash	b. 30,000 LB/HR	c. 30,000 LB/HR
d. ____	e. ____ LB/HR	f. ____ LB/HR
g. ____	h. ____ LB/HR	i. ____ LB/HR

26. AVERAGE OPERATION TIME OF EMISSION SOURCE: 1.5 HRS/DAY 7 DAYS/WK 52 WKS/YR	27. PERCENT OF ANNUAL THROUGHPUT: DEC/FEB 50 % MAR/MAY 20 % JUNE/AUG 10 % SEP/NOV 20 %

I.D. NO. | | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. S | | | | | | |

EXHAUST GAS ANALYSIS
(FROM EMISSION SOURCE TO CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
28. CARBON MONOXIDE	a. PPM	b. LB/HR	c.	d.
29. CARBON DIOXIDE	a. PPM	b. LB/HR	c.	d.
30. CHLORINE	a. PPM	b. LB/HR	c.	d.
31. HYDROCARBONS AS CH_4	a. PPM	b. LB/HR	c.	d.
32. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
33. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
34. NITROGEN	a. PPM	b. LB/HR	c.	d.
35. NITROGEN OXIDES AS NO_2	a. PPM	b. LB/HR	c.	d.
36. SULFUR DIOXIDE	a. PPM	b. LB/HR	c.	d.
37. OTHER (SPECIFY)	a. PPM	b. LB/HR	c.	d.
38. PARTICULATE MATTER	a. GRAIN/SCF	b. 30,000 LB/HR	c.	d.

39. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal fly ash & cinders 100%.

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

40. HOW EMISSIONS ARE EXHAUSTED: ☐ STACK ☐ VENT	41. GAS EXIT VELOCITY: FPS	42. GAS EXIT TEMPERATURE: ^{o}F

43. DRAFT CONTROLS: ☐ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY)_____

44. DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDRY OF THE APPLICANT: FT.	45. HEIGHT OF STACK OR VENT ABOVE GRADE: FT.
46. HEIGHT OF STACK OR VENT ABOVE ROOF: FT.	47. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: FT.
48. YOUR DESIGNATION OF STACK:	49. AREA OF STACK OR VENT AT EXIT: FT^2

50. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

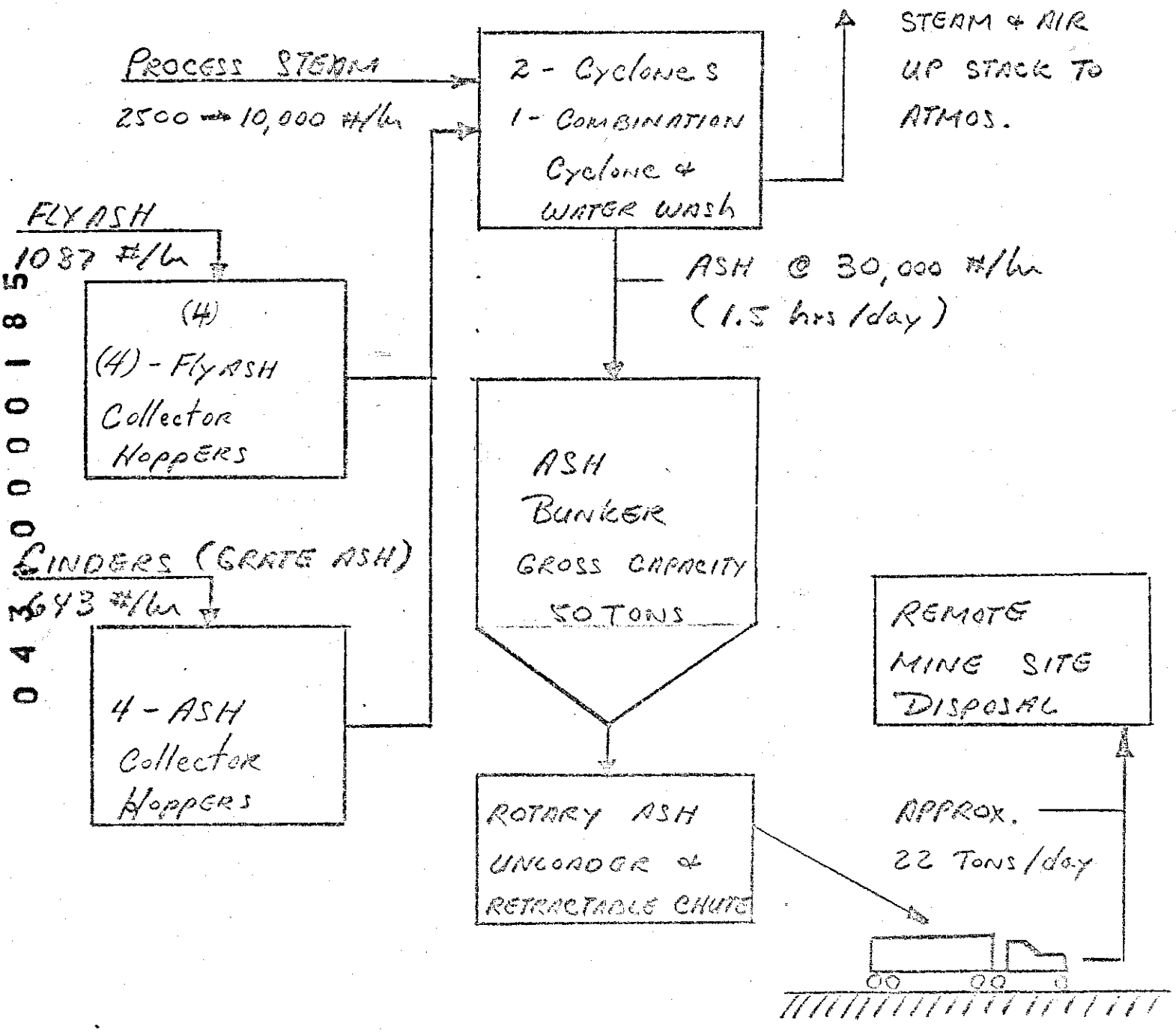
TOTAL NUMBER OF PAGES IN EXHIBIT G:_____

51. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	_____ LB	SULFUR DIOXIDE	_____ LB	NITROGEN OXIDES AS NO_2	_____ LB
HYDROCARBONS AS CH_4	_____ LB	CARBON MONOXIDE	_____ LB		

FLOW DIAGRAM

DRAWING No 14



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BEAUMONT BIRCH ASH COLLECTION SYSTEM
BOILER HOUSE BLDG. N.
CATERPILLAR TRACTOR CO.
JANUARY 2, 1973

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

ADDENDUM L
DISPOSITION OF SOLID WASTE MATERIAL
FROM
DRY COLLECTORS
Joliet Heating Plant

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO.
DATE

1. NAME OF OWNER: Caterpillar Tractor Co.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER): Caterpillar Tractor Co.
3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
4. CITY: Joliet, Illinois

5. Describe the processes which result in the production of solid waste material and attach this description to this addendum.

Total number of pages in Exhibit S: 1

6. Describe the state of the waste material (slurry, cake, fine ash, cinders, powder, sludge, etc.) at the applicant's proposed disposal site and attach this description to this addendum as Exhibit T.

Total number of pages in Exhibit T: 1

7. State the chemical composition, expressed as a weight percentage, of the solid waste and attach to this addendum as Exhibit U: None

8. State the volume and weight of the solid waste generated by this operation on each of the following time intervals: daily, weekly, monthly, and annually. (If these interval bases are not applicable to your operation, you may select different time bases, but must justify such selection.) Attach your answer to this addendum as Exhibit V:

Total number of pages in Exhibit V: 1

9. Will the solid waste material be deposited in a sanitary landfill permitted by the Environmental Protection Agency? ☐ Yes ☒ No

If "Yes" state the name and Agency permit number of such site.

_____ NAME

_____ PERMIT NUMBER

10. State if the solid waste material will be deposited in a sanitary landfill for which an Agency permit application is pending. ☐ Yes ☒ No

If "Yes" give the name and legal description of this site: _____

_____

11. Will the solid waste material be reused or recycled at the applicant's plant or premises? ☐ Yes ☒ No

If "Yes" describe the reclaiming process and attach to this addendum as Exhibit W.

Total number of pages in Exhibit W: _____

12. Will the solid waste material be transported to a remote site for reuse or recycling? ☐ Yes ☒ No

If "Yes" describe the location and reclaiming process and attach to this addendum as Exhibit X.

Total number of pages in Exhibit X: _____

13. Will the solid waste material be incinerated? ☐ Yes ☒ No

If "Yes" state the name, location, and owner of the incinerator and attach to this addendum as Exhibit Y.

Total number of pages in Exhibit Y: _____

14. If the solid waste will be disposed in a manner not described in Questions 5 through 9 of this addendum, state the method if disposal to be used, the owner and location of the disposal facility, and attach to this addendum as Exhibit Z.

Total number of pages in Exhibit Z: 1

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EXHIBIT S:

Boiler House grate and fly ash.

EXHIBIT T:

Fine ash, cinders and powder.

EXHIBIT V:

22 Tons/day
150 Tons/week
2900 Tons/year

EXHIBIT Z:

The fly and grate ash is hauled by truck Monday thru Friday for disposal at:

Peabody Coal Co.
Gardner, Illinois
Mine Pit No. 14
Grundy County

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION
FOR EXISTING
AIR POLLUTION CONTROL EQUIPMENT

Joliet Heating Plant Fly & Grate Ash Collection System

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. C
DATE

1a. NAME OF OWNER: Caterpillar Tractor Co.	1b. NAME OF OPERATOR: Caterpillar Tractor Co.
2a. STREET ADDRESS OF OWNER: Box 504	2b. STREET ADDRESS OF OPERATOR: Box 504
3a. CITY OF OWNER: Joliet	3b. CITY OF OPERATOR: Joliet
4a. STATE OF OWNER: Illinois / 4b. ZIP CODE: 60434	5a. STATE OF OPERATOR: Illinois / 5b. ZIP CODE: 60434

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

8a. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	8. STREET ADDRESS OF EMISSION SOURCE:
9a. CITY: Joliet / 9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO	10: COUNTY: Will / 11. ZIP CODE: 60435

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-62, 1 copy, 5 pages, Fly & Grate Ash Collection System.
Flow Diagram, 1 copy, 1 page, Fly & Grate Ash Collection System, Drawing No. 14.
APC-103, 1 copy, 2 pages, Fly Ash Disposal

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY | PERMIT APPLICATION NO. C | | | | | | |

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPMENT
14. TYPE OF CONTROL EQUIPMENT: (e.g., MULTICLONE, BAGHOUSE)	a. Cyclone	b. Cyclone	c. Cyclone & spray wash
15. MANUFACTURER:	a. Beaumont Birch Co.	b. Beaumont Birch Co.	c. Beaumont Birch Co.
16. MODEL:	a. Special	b. Special	c. Special
17. SERIAL NUMBER:	a. CR-14634	b. CR-14634	c. CR-14634
18. COST OF CONTROL EQUIPMENT: (NOT INCLUDING INSTALLATION)	a. $	b. $	c. $
19. INLET GAS RATE (CFM AT INLET TEMPERATURE & PRESSURE):	a. CFM	b. CFM	c. CFM
20. INLET GAS RATE (AT STANDARD CONDITIONS):	a. SCFM	b. SCFM	c. SCFM
21. INLET TEMPERATURE (AT POINT OF INLET GAS RATE MEASUREMENT):	a. °F	b. °F	c. °F
22. EXHAUST GAS RATE (CFM AT EXHAUST TEMPERATURE & PRESSURE):	a. CFM	b. CFM	c. CFM
23. EXHAUST TEMPERATURE (AT POINT OF EXHAUST GAS RATE MEASUREMENT):	a. °F	b. °F	c. °F
24. DUCT VELOCITY (AT POINT OF INLET GAS RATE MEASUREMENT):	a. FPS	b. FPS	c. FPS
25. INLET GRAIN LOADING (AT POINT OF INLET GAS RATE MEASUREMENT):	a. GRS/SCF	b. GRS/SCF	c. GRS/SCF
26. GEOMETRIC MEAN DIAMETER OF PARTICULATE MATTER:	a. MICRON	b. MICRON	c. MICRON
27. STANDARD GEOMETRIC DEVIATION OF DISTRIBUTION OF PARTICLE SIZE BY WEIGHT:	a.	b.	c.
28. INLET CONCENTRATION BY VOLUME % OF GASEOUS CONTAMINANTS IN THE TOTAL GAS STREAM. (NEED NOT SUBMIT THIS INFORMATION IF FORM APC-63 IS SUBMITTED):	a.	b.	c.
29. PRESSURE DROP:	a. INCHES OF WATER	b. INCHES OF WATER	c. INCHES OF WATER
30. CONTROL EQUIPMENT EFFICIENCY:	a. Est. 90 ☐ VOL % ☒ WT %	b. Est. 90 ☐ VOL % ☒ WT %	c. Est. 95 ☐ VOL % ☒ WT %
31. EXHAUST GAS DEW POINT:	a. °F	b. °F	c. °F

32. AVERAGE OPERATION TIME OF CONTROL EQUIPMENT: 1.5 HRS/DAY 7 DAYS/WK 52 WKS/YR

33. PERCENT OF ANNUAL THRUPUT: DEC-FEB 50% MAR-MAY 20 % JUNE-AUG 10 % SEPT-NOV 20 %

I.D. NO. [ ][ ][ ][ ][ ][ ][ ][ ] FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. C [ ][ ][ ][ ][ ][ ]

BAGHOUSES AND CYCLONES

BAGHOUSE	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPMENT
56. METHOD OF PRIOR COOLING:	☐ LIQUID SPRAY ☐ EXCESS AIR VOL _____ CFM ☐ EXTENDED DUCTWORK 1. LENGTH _____ FT 2. DIAMETER _____ IN 3. TYPE OF DUCT MATERIAL _____ 4. THICKNESS OF DUCT MATERIAL _____ IN 5. PAINT COLOR _____ 6. GAS VELOCITY _____ FPS ☐ OTHER (SPECIFY) a. _____	☐ LIQUID SPRAY ☐ EXCESS AIR VOL _____ CFM ☐ EXTENDED DUCTWORK 1. LENGTH _____ FT 2. DIAMETER _____ IN 3. TYPE OF DUCT MATERIAL _____ 4. THICKNESS OF DUCT MATERIAL _____ IN 5. PAINT COLOR _____ 6. GAS VELOCITY _____ FPS ☐ OTHER (SPECIFY) b. _____	☐ LIQUID SPRAY ☐ EXCESS AIR VOL _____ CFM ☐ EXTENDED DUCTWORK 1. LENGTH _____ FT 2. DIAMETER _____ IN 3. TYPE OF DUCT MATERIAL _____ 4. THICKNESS OF DUCT MATERIAL _____ IN 5. PAINT COLOR _____ 6. GAS VELOCITY _____ FPS ☐ OTHER (SPECIFY) c. _____
57. CLEANING METHOD:	☐ SHAKER ☐ REVERSE AIR ☐ OTHER (SPECIFY) a. _____	☐ SHAKER ☐ REVERSE AIR ☐ OTHER (SPECIFY) b. _____	☐ SHAKER ☐ REVERSE AIR ☐ OTHER (SPECIFY) c. _____
58. TYPE OF CLOTH MATERIAL:	a.	b.	c.
59. FILTER RATIO:	a. CFM/FT^2	b. CFM/FT^2	c. CFM/FT^2
CYCLONE	**PRIMARY CONTROL EQUIPMENT**	**SECONDARY CONTROL EQUIPMENT**	**TERTIARY CONTROL EQUIPMENT**
60. TYPE OF CLONE:	a. ☒ SIMPLE ☐ MULTICLONE	b. ☒ SIMPLE ☐ MULTICLONE	c. ☒ SIMPLE ☐ MULTICLONE
61. FOR MULTIPLE UNITS GIVE NUMBER OF CLONES:	a.	b.	c.
62. CONE HEIGHT:	a. 18 IN	b. 18 IN	c. 8 IN
63. INLET WIDTH:	a. 8 IN	b. 8 IN	c. 8 IN
64. BODY HEIGHT:	a. 72 IN	b. 72 IN	c. 36 IN
65. BODY DIAMETER:	a. 36 IN	b. 36 IN	c. 36 IN
66. OUTLET DIAMETER:	a. 8 IN	b. 8 IN	c. 18 IN
67. INLET VELOCITY:	a. 2500-10,000 #/hr steam FPS	b. FPS	c. FPS
68. EXIT VELOCITY FROM CLONE:	a. FPS	b. FPS	c. FPS
69. CUT SIZE:	a. MICRONS	b. MICRONS	c. MICRONS

I.D. NO [| | | | | | | |] FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. C [| | | | | | |]

WET COLLECTOR GENERAL INFORMATION

	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPMENT
70. TYPE OF WET COLLECTOR:	☐ CYCLONE ☐ ORIFICE ☐ SPRAY ☐ MECHANICAL a. ☐ OTHER (SPECIFY)	☐ CYCLONE ☐ ORIFICE ☐ SPRAY ☐ MECHANICAL b. ☐ OTHER (SPECIFY)	☐ CYCLONE ☐ ORIFICE ☒ SPRAY ☐ MECHANICAL c. ☐ OTHER (SPECIFY)
71. INLET SCRUBBANT COMPOSITION AND WT. % EACH:	COMPOSITION WT. % a. b. c.	COMPOSITION WT. % d. e. f.	COMPOSITION WT. % g. h. i.
72. PH VALUE OF INLET SCRUBBANT:	a.	b.	c.
73. OUTLET SCRUBBANT COMPOSITION WT. % EACH:	COMPOSITION WT. % a. b. c.	COMPOSITION WT. % d. e. f.	COMPOSITION WT. % g. h. i.
74. SCRUBBANT FLOW:	a. GPH	b. GPH	c. GPH
75. SCRUBBANT MAKEUP RATE:	a. GPH	b. GPH	c. GPH
76. SCRUBBANT MAKEUP COMPOSITION AND WT. % SOLUTE:	a. WT. %	b. WT. %	c. WT. %
77. VAPOR PRESSURE OF LIQUID CONTAMINANT AT OPERATING TEMPERATURE:	a. PSIA	b. PSIA	c. PSIA
78. PRESSURE DROP	a. INCHES OF WATER	b. INCHES OF WATER	c. INCHES OF WATER
79. TYPE OF MIST ELIMINATOR:	a. ☐ SIMPLE BAFFLES ☐ OTHER ☐ NONE	b. ☐ SIMPLE BAFFLES ☐ OTHER ☐ NONE	c. ☐ SIMPLE BAFFLES ☐ OTHER ☐ NONE
SCRUBBER Air Washer	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPMENT
80. NOZZLE PRESSURE:	a. PSIA	b. PSIA	c. (65 psig) PSIA
81. CONTACT AREA:	a. FT^2	b. FT^2	c. 7.06 FT^2
82. TYPE OF PACKING:	a.	b.	c.
83. LENGTH OF PACKED BED:	a. IN	b. IN	c. IN
84. SCRUBBER CROSS-SECTIONAL AREA:	a. FT^2	b. FT^2	c. 7.06 FT^2
VENTURI SCRUBBER	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPMENT
85. THROAT DIAMETER:	a. FT	b. FT	c. FT
86. GAS VELOCITY AT THROAT:	a. FPS	b. FPS	c. FPS
87. CORRELATION COEFFICIENT:	a.	b.	c.

I.D. NO. | | | | | | | | | | FOR OFFICIAL USE ONLY | C | | | | | | |

EXHAUST

89. EXHAUST GAS FROM CONTROL EQUIPMENT IS VENTED TO: ☐ INSIDE BUILDING ☒ ATMOSPHERE ☐ OTHER (SPECIFY): _____

90. YOUR DESIGNATION OF STACK OR VENT: Undesignated

91. HOW EMISSIONS ARE EXHAUSTED: ☒ STACK ☐ VENT

92. GAS EXIT VELOCITY: Unknown & Variable FPS

93. GAS EXIT TEMPERATURE: Est. 212°F OF

94. DRAFT CONTROLS: ☐ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY) None

95. HEIGHT OF STACK OR VENT ABOVE GRADE: 78 ft.

97. HEIGHT OF STACK OR VENT ABOVE ROOF: 4 FT

98. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: 74 FT

99. STACK OR VENT SERVES: ☒ ONLY THIS EQUIPMENT ☐ OTHER EQUIPMENT

100. AREA OF STACK OR VENT AT EXIT: 1.77 FT^2

101. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE NATURE AND QUANTITY OF THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: NONE

102. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT. 321.7 Acres

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	144.9 LB	SULFUR DIOXIDE	1496.8 LB	NITROGEN OXIDES AS NO_2	295.6 LB
HYDROCARBONS AS CH_4	161.9 LB	CARBON MONOXIDE	222.9 LB	Chromic Oxide	1.87#

EXHAUST GAS ANALYSIS

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
104. CARBON DIOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
105. CARBON MONOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
106. CHLORINE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
107. HYDROCARBONS AS CH_4	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
108. HYDROGEN CHLORIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
109. HYDROGEN SULFIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
110. NITROGEN	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
111. NITROGEN OXIDES AS NO_2	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
112. SULFUR DIOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
113. OTHER (SPECIFY)	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
114. PARTICULATE MATTER	a. GRAIN/SCF	b. 15 ☐ LB/10^6BTU ☒ LB/HR	c. Est. based on cinder rate & collection efficiency	d.

115. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal fly ash & cinders 100%

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION FOR EXISTING EMISSION SOURCE

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO. C

DATE

Joliet Plant Heating Plant Coal Pile & Related Coal Handling System

1a. NAME OF OWNER: Caterpillar Tractor Co.

1b. NAME OF OPERATOR: Caterpillar Tractor Co.

2a. STREET ADDRESS OF OWNER: Box 504

2b. STREET ADDRESS OF OPERATOR: Box 504

3a. CITY OF OWNER: Joliet

3b. CITY OF OPERATOR: Joliet

4a. STATE OF OWNER: Illinois

4b. ZIP CODE: 60434

5a. STATE OF OPERATOR: Illinois

5b. ZIP CODE: 60434

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO

8. STREET ADDRESS OF EMISSION SOURCE:

9a. CITY: Joliet

9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☒ NO

10. COUNTY: Will

11. ZIP CODE: 60434

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

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THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-64, 1 copy, 3 pages Coal Pile & Related Coal Handling System
Flow Diagram, 1 copy, 1 page, Coal Pile & Related Coal Handling System, Drawing No. 15

I.D. NO. [| | | | | | | |] FOR OFFICIAL USE ONLY APPLICATION NO. S [| | | | | | | |]

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:

1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORM FOR EACH EMISSION SOURCE NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE), PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE EMISSION SOURCE IS LOCATED AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. NAME OF PROCESS: Coal Handling & Storage System	15. NAME OF EMISSION SOURCE EQUIPMENT: Coal Handling System
16. EMISSION SOURCE EQUIPMENT MANUFACTURER: Beaumont Birch	17. MODEL NUMBER: Contract No. / 18. SERIAL NUMBER: CR-14634
19. NUMBER OF IDENTICAL EMISSION SOURCES: None	20. TYPE PROCESS: ☐ CONTINUOUS ☒ BATCH
21. PROCESS WEIGHT RATE: 30,740 LB/HR	22. BATCH RATE: .25 BATCH/HR 110,000 LB/HR

23. COMPOSITION OF RAW MATERIALS USED IN THE PROCESS AND PERCENT OF EACH BY WEIGHT (COMMON NAME SHOULD BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Bituminous Coal 100%

24. NAME OF PRODUCTS MANUFACTURED:	MAXIMUM PRODUCTION RATE FOR EACH PRODUCT:	ESTIMATED AVERAGE PRODUCTION RATE OF EACH PRODUCT:
a. None	b. ____ LB/HR	c. ____ LB/HR
d. ____	e. ____ LB/HR	f. ____ LB/HR
g. ____	h. ____ LB/HR	i. ____ LB/HR

25. WASTE MATERIALS FROM MANUFACTURING PROCESS:	MAXIMUM AMOUNT OF WASTE MATERIALS PRODUCED.	ESTIMATED AVERAGE AMOUNT OF WASTE MATERIALS PRODUCED.
a. None	b. ____ LB/HR	c. ____ LB/HR
d. ____	e. ____ LB/HR	f. ____ LB/HR
g. ____	h. ____ LB/HR	i. ____ LB/HR

26. AVERAGE OPERATION TIME OF EMISSION SOURCE: 4 HRS/DAY 7 DAYS/WK 52 WKS/YR	27. PERCENT OF ANNUAL THROUGHPUT: DEC/FEB 67 % MAR/MAY 25 % JUNE/AUG - % SEP/NOV 8 %

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. S | | | | | | | |

EXHAUST GAS ANALYSIS
(FROM EMISSION SOURCE TO CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
28. CARBON MONOXIDE	a. PPM	b. LB/HR	c.	d.
29. CARBON DIOXIDE	a. PPM	b. LB/HR	c.	d.
30. CHLORINE	a. PPM	b. LB/HR	c.	d.
31. HYDROCARBONS AS CH_4	a. PPM	b. LB/HR	c.	d.
32. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
33. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
34. NITROGEN	a. PPM	b. LB/HR	c.	d.
35. NITROGEN OXIDES AS NO_2	a. PPM	b. LB/HR	c.	d.
36. SULFUR DIOXIDE	a. PPM	b. LB/HR	c.	d.
37. OTHER (SPECIFY)	a. PPM	b. LB/HR	c.	d.
38. PARTICULATE MATTER	a. GRAIN/SCF	b. Unknown LB/HR	c. Fugitive dust unobserved	d. at property line.

39. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Fugitive coal dust 100%.

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

40. HOW EMISSIONS ARE EXHAUSTED: ☐ STACK ☐ VENT	41. GAS EXIT VELOCITY: FPS	42. GAS EXIT TEMPERATURE: °F

43. DRAFT CONTROLS: ☐ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY)

44. DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDRY OF THE APPLICANT: FT.	45. HEIGHT OF STACK OR VENT ABOVE GRADE: FT.
46. HEIGHT OF STACK OR VENT ABOVE ROOF: FT.	47. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: FT.
48. YOUR DESIGNATION OF STACK:	49. AREA OF STACK OR VENT AT EXIT: FT^2

50. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

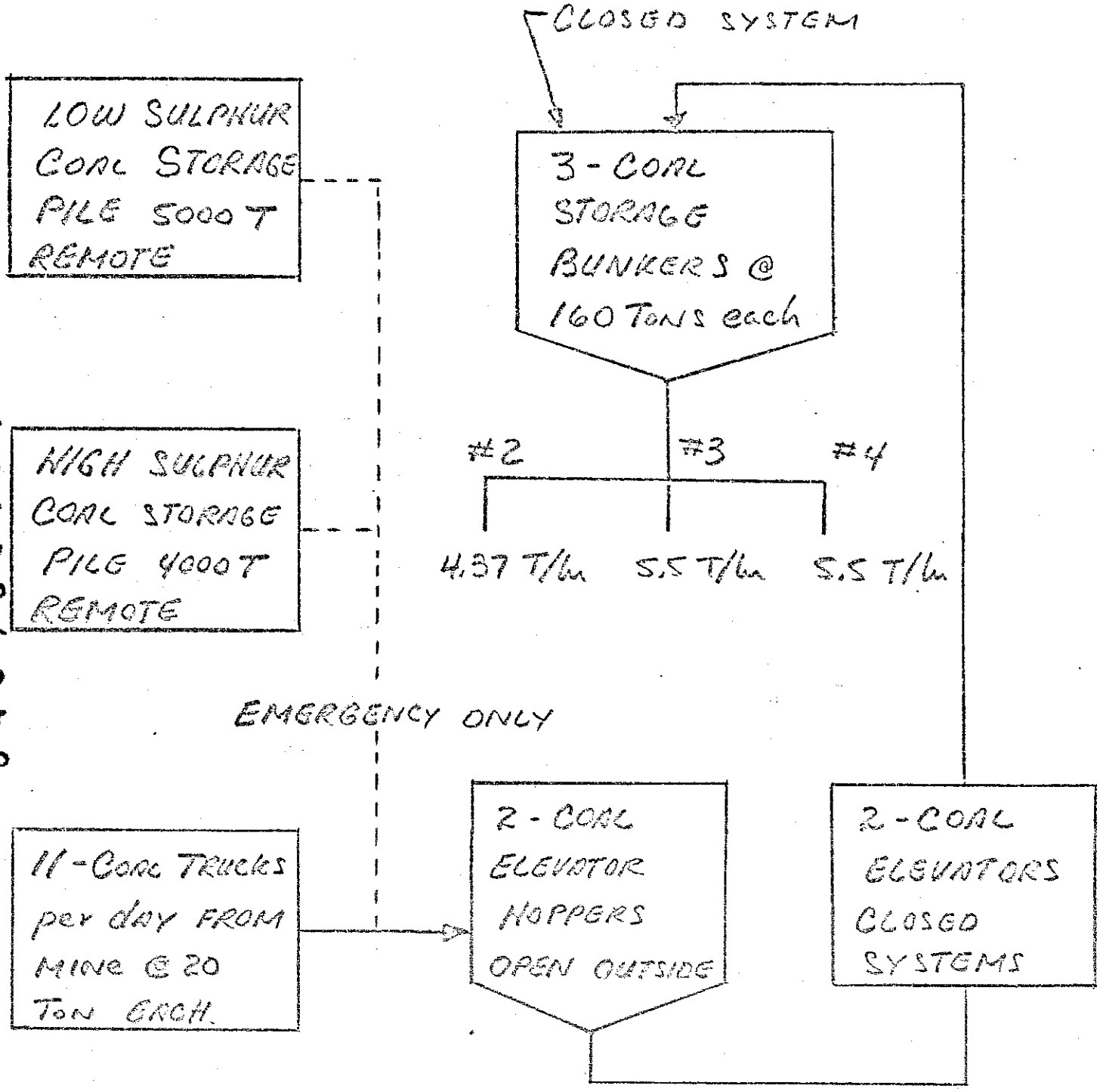
TOTAL NUMBER OF PAGES IN EXHIBIT G: None

51. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	144.9 LB	SULFUR DIOXIDE	1496.8 LB	NITROGEN OXIDES AS NO_2	295.6 LB
HYDROCARBONS AS CH_4	161.9 LB	CARBON MONOXIDE	222.9 LB	Chromic Oxide	1.87#

FLOW DIAGRAM

DRAWING No 15



0430000196

BEAUMONT BIRCH COAL HANDLING SYSTEM
BOILER HOUSE BLDG N
CATERPILLAR TRACTOR CO.
JANUARY 3, 1973

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

APPLICATION TO OPERATE
DURING
MALFUNCTIONS, BREAKDOWNS, OR STARTUPS

Joliet Plant Heating Plant

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. 0
DATE

1. NAME OF OWNER: Caterpillar Tractor Co.	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER): Caterpillar Tractor Co.
3. TELEPHONE NUMBER: 815-729-5511	4. TELEPHONE NUMBER: 815-729-5511
5. STREET ADDRESS OF OWNER: Box 504	6. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
7. CITY: Joliet	8. CITY: Joliet — 9. LOCATED WITHIN CITY LIMITS ☐ YES ☒ NO
10. STATE: Illinois — 11. ZIP CODE: 60434	12. TOWNSHIP: Joliet — 13. ZIP CODE: 60434

Section "A" -- Startups

The applicant shall submit the information requested in this Section for each emission source which during startup may exceed applicable emission standards, either alone or in combination with emissions from other similar emission sources located in the same plant or on the premises of the applicant.

1. For each such emission source and directly related equipment, submit the following information and attach to this application as Exhibit E:

   (a) Describe the startup procedure.
   (b) State the types and quanities of emissions that may occur during startup by completing Form APC-96. (Total number of Forms APC-96 included with this application: 3)
   (c) Describe those procedures the applicant will take during startup to reduce the emissions.
   (d) Describe the frequency and duration of startups.
   (e) Describe all measures the applicant will take to minimize the frequency and duration of startups.

Total number of pages in Exhibit E: 7

Section "B"--Malfunctions and Breakdowns

The applicant shall submit the information requested in this Section for each item of source equipment that the applicant requests permission to operate during a malfunction or breakdown, in which such operation would result in a discharge of emission of contaminants in excess of applicable emission standards, either alone or in combination with emissions from other similar emission sources located in the same plant or on the premises of the applicant.

1. For each such emission source and directly related equipment, submit the following information and attach to this application as Exhibit F:

   (a) State the type and quantity of emissions that may occur during malfunction or breakdown by completing Form APC-96. (Total number of Forms APC-96 included with this application: 3)
   (b) Describe the extent to which discontinued operation of this equipment would: (A) cause or tend to cause injury to persons or severe damage to equipment; or (B) prevent the applicant from providing essential services to the public.
   (c) State the anticipated length of time the equipment will continue to operate during the malfunction or breakdown, including an explanation why this length of time is necessary.
   (d) Describe all measures the applicant will take to minimize the duration of a malfunction or breakdown.
   (e) Describe all measures the applicant will take to minimize the quantity of air contaminant emissions that may occur during a malfunction or breakdown.

Total number of pages in Exhibit F: 9

EXHIBIT E:

(a) COAL BOILER STARTUP PROCEDURE

Except in emergencies, boiler startups are always scheduled for second or third shifts, usually the latter part of the second shift. This practice has been developed primarily due to the fact that heaviest steam demand occurs at start of the first shift and particularly with coal boilers; several hours are usually required to adjust the boilers for the best operating conditions.

Normally, at least one boiler is kept in standby condition, filled with water and with available fuel supply ready to start in a minimum of time in event of an operating boiler failure. This boiler should have been previously hydrostatically tested at a minimum of 150 lbs. pressure.

NOTE: Boilers are normally started up twice a year except for malfunction, breakdown or extreme weather variation.

PREPARATION

1. Before lighting off the boiler, check operating condition of auxiliary equipment that serves firing or feeding the boiler; such as interlocks, automatic combustion controls, dampers, feedwater pumps and regulators, each pressure vessel, drums and headers, etc.
2. Check the position of all valves. All valves on blowdown lines, continuous blowdown, water column and gauge glass drains, and feedwater regulator should be closed. Open vent valves, water column shutoff valves, gauge glass shutoff valves, and steam pressure gauge valves.
3. Fill boiler and economizer with feedwater, which should be within 50 to 100 degrees F. of drum metal temperature, to about two inches below normal operating level. Be careful to feed slowly and vent fully to permit escape of steam or air.
4. Blow down water column and gauge glass, making sure the water returns to proper level promptly.

5. Raising boiler pressure: During the first two hours, the stack will exceed the visual emission standard of 40% on the smoke density indicator. It takes 4 hours to bring the boiler to 150 psig.

   A. Throughout firing up period, maintain normal water level. All firing equipment should be placed on hand control until the boiler has been placed on the line.

   B. Use fire ignitor (napalm) and a thin layer of coal to light up the fire. Maintain fires at a rate which will raise boiler water temperature of 50 degrees F. per hour. When water temperature reaches the steaming point and all the air has been purged from the steam drum, throttle the drum vent and allow boiler pressure to rise at the rate between 5 to 10 psi per hour.

   C. When pressure goes above atmospheric (about 25 psig), close the vent.

   D. Open the drain between the non-return valve and the main stop valve early in the starting-up period, and at the same time, raise the non-return valve stem slightly to allow a gradual warming up of the steam line to the main stop valve while pressure is increasing.

   E. When boiler pressure reaches about 90% of line pressure, open main stop valve after equalizing the steam lead to the header by use of the bypass around the main stop valve, and slowly open non-return valve allowing steam to flow through the gate valve bypass thus warming the line slowly. When line has been warmed and evidence of moisture has disappeared, slowly open the gate valve admitting full steam flow to the line. Gate valve bypass and drip valves should then be closed.

   F. After the boiler has been placed on the line, close all drips and drum vents. Gradually increase boiler loading manually up to about

30% of rating, depending on control characteristics, and place on automatic control observing all the rules concerning controls operation. Before placing feedwater regulator in service, blow down the temperature element and allow the system to come to equilibrium.

G. If boiler is being started up after repairs, check all gasketed joints and takeup after reaching working pressure and temperature.

H. Safety valves should be checked by lifting off the seats with the hand level or raising pressure to the pop-off point.

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

EMISSIONS DURING
MALFUNCTIONS, BREAKDOWN OR STARTUP

Joliet Heating Plant Boilers No. 2

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO.

DATE

1. NAME OF OWNER: Caterpillar Tractor Co.

2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road

4. CITY: Joliet

NOTE: 1. APPLICANT MUST SUBMIT TWO COPIES OF THE EMISSION DURING MALFUNCTIONS, BREAKDOWN, OR STARTUP FORM APC-96.

2. EACH SUCH EMISSION SOURCE SHALL BE CLEARLY LABELED ON THE ATTACHED PROCESS FLOW DIAGRAM.

ANALYSIS OF EXHAUST GAS TO THE AMBIENT AIR

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT. Each of 3 stacks identical

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
14. CARBON MONOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
15. CARBON DIOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
16. CHLORINE	a. PPM	b. LB/HR	c.	d.
17. HYDROCARBONS AS CH_4	a. PPM	b. Unknown & variable LB/HR	c.	d.
18. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
19. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
20. NITROGEN	a. PPM	b. Unknown & variable LB/HR	c.	d.
21. NITROGEN OXIDES AS NO_2	a. PPM	b. Unknown & variable LB/HR	c.	d.
22. SULFUR DIOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
23. OTHER (SPECIFY)	a. Smoke PPM	b. 4.0-3.0 Max. LB/HR	c. Smoke density decreases from a maximum of 4.0 Ringelman (wet coal) or 3.0 (dry coal).	
24. PARTICULATE MATTER	a. Est. Max* 770 PPM	b. Est. Max* .403 gr/SCF LB/HR	c. To 1.5 Ringelman over a 4.0 hour period. *Estimate based on correlation with Hayes smoke density meter (estimate only).	

25. PARTICULATE MATTER COMPOSITION. EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal fly ash 100%

36. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: None

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

EMISSIONS DURING
MALFUNCTIONS, BREAKDOWN OR STARTUP

Joliet Heating Plant Boilers No. 3

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO.
DATE

1. NAME OF OWNER: Caterpillar Tractor Co.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
4. CITY: Joliet

NOTE: 1. APPLICANT MUST SUBMIT TWO COPIES OF THE EMISSION DURING MALFUNCTIONS, BREAKDOWN, OR STARTUP FORM APC-96.

2. EACH SUCH EMISSION SOURCE SHALL BE CLEARLY LABELED ON THE ATTACHED PROCESS FLOW DIAGRAM.

ANALYSIS OF EXHAUST GAS TO THE AMBIENT AIR

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT. Each of 3 stacks identical

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
14. CARBON MONOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
15. CARBON DIOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
16. CHLORINE	a. PPM	b. LB/HR	c.	d.
17. HYDROCARBONS AS CH_4	a. PPM	b. Unknown & variable LB/HR	c.	d.
18. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
19. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
20. NITROGEN	a. PPM	b. Unknown & variable LB/HR	c.	d.
21. NITROGEN OXIDES AS NO_2	a. PPM	b. Unknown & variable LB/HR	c.	d.
22. SULFUR DIOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
23. OTHER (SPECIFY)	a. Smoke PPM	b. 4.0-3.0 Ringleman Max LB/HR	c. Smoke density decreases from a maximum of 4.0 Ringleman (wet coal) or 3.0 (dry coal)	
24. PARTICULATE MATTER	a. Est. max * 770 PPM	b. Est. max * .403 gr/SCF LB/HR	c. to 1.5 Ringleman over a 4.0 hour period. *Estimate based on correlation with Hayes smoke density meter (estimate only).	d.

25. PARTICULATE MATTER COMPOSITION. EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal fly ash 100%

36. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: None

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

EMISSIONS DURING
MALFUNCTIONS, BREAKDOWN OR STARTUP

Joliet Heating Plant Boilers No. 4

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO.
DATE

1. NAME OF OWNER: Caterpillar Tractor Co.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
4. CITY: Joliet

NOTE: 1. APPLICANT MUST SUBMIT TWO COPIES OF THE EMISSION DURING MALFUNCTIONS, BREAKDOWN, OR STARTUP FORM APC-96.

2. EACH SUCH EMISSION SOURCE SHALL BE CLEARLY LABELED ON THE ATTACHED PROCESS FLOW DIAGRAM.

ANALYSIS OF EXHAUST GAS TO THE AMBIENT AIR

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT. Each of 3 stacks identical

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
14. CARBON MONOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
15. CARBON DIOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
16. CHLORINE	a. PPM	b. LB/HR	c.	d.
17. HYDROCARBONS AS CH_4	a. PPM	b. Unknown & variable LB/HR	c.	d.
18. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
19. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
20. NITROGEN	a. PPM	b. Unknown & variable LB/HR	c.	d.
21. NITROGEN OXIDES AS NO_2	a. PPM	b. Unknown & variable LB/HR	c.	d.
22. SULFUR DIOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
23. OTHER (SPECIFY)	a. Smoke PPM	b. 4.0-3.0 Ringleman Max LB/HR	c. Smoke density decreases from a maximum of 4.0 Ringelmann (wet coal) or 3.0 (dry coal) to 1.5 Ringelmann over a 4.0 hour period.	
24. PARTICULATE MATTER	a. Est max * 770 PPM	b. Est max * .403 gr/scf LB/HR	c. *Estimate based on correlation with Hayes smoke density meter (estimate only).	

25. PARTICULATE MATTER COMPOSITION. EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal fly ash 100%

36. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: None

(C) Fuel and air are manually controlled and closely watched so as not to heat the boiler up too fast causing boiler damage but by the same token attempting to minimize smoking as much as possible.

(D) Each boiler is started up approximately (6) to (8) times per year. Most startups require approximately a (4) hour or less period. However, on occasion, it will take approximately six (6) hours to properly bring the boiler on line.

(E) The boiler is shut down and started only because of breakdown or drastically changing weather conditions requiring major changes in heating plant load.

STATE OF ILLINOIS
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DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

EXHIBIT F

(a)

EMISSIONS DURING
MALFUNCTIONS, BREAKDOWN OR STARTUP

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO.

DATE

Joliet Plant Heating Plant Boiler #2

1. NAME OF OWNER: Caterpillar Tractor Co.

2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER): Caterpillar Tractor Co.

3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road

4. CITY: Joliet

NOTE: 1. APPLICANT MUST SUBMIT TWO COPIES OF THE EMISSION DURING MALFUNCTIONS, BREAKDOWN, OR STARTUP FORM APC-96.

2. EACH SUCH EMISSION SOURCE SHALL BE CLEARLY LABELED ON THE ATTACHED PROCESS FLOW DIAGRAM.

ANALYSIS OF EXHAUST GAS TO THE AMBIENT AIR

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
14. CARBON MONOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
15. CARBON DIOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
16. CHLORINE	a. PPM	b. LB/HR	c.	d.
17. HYDROCARBONS AS CH4	a. PPM	b. Unknown & variable LB/HR	c.	d.
18. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
19. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
20. NITROGEN	a. PPM	b. LB/HR	c.	d.
21. NITROGEN OXIDES AS NO_2	a. PPM	b. Unknown & variable LB/HR	c.	d.
22. SULFUR DIOXIDE	a. PPM	b. 432 LB/HR	c. Calculated U.S. AP-42	d.
23. OTHER (SPECIFY)	a. Smoke PPM	b. 3.0 - 5.0 Ringelmann LB/HR	c. Hayes smoke meter	d.
24. PARTICULATE MATTER	a. Est. 565 to 960 PPM	b. Est. max 76.5 LB/HR	c. Estimate correlating particulate to smoke density from Lear-Siegler tests.	

25. PARTICULATE MATTER COMPOSITION. EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal flyash & fines 100%.

36. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: None

STATE OF ILLINOIS
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2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

EMISSIONS DURING
MALFUNCTIONS, BREAKDOWN OR STARTUP

Joliet Plant Heating Plant Boiler #3

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO.
DATE

1. NAME OF OWNER: Caterpillar Tractor Co.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER): Caterpillar Tractor Co.
3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
4. CITY: Joliet

NOTE: 1. APPLICANT MUST SUBMIT TWO COPIES OF THE EMISSION DURING MALFUNCTIONS, BREAKDOWN, OR STARTUP FORM APC-96.

2. EACH SUCH EMISSION SOURCE SHALL BE CLEARLY LABELED ON THE ATTACHED PROCESS FLOW DIAGRAM.

ANALYSIS OF EXHAUST GAS TO THE AMBIENT AIR

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
14. CARBON MONOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
15. CARBON DIOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
16. CHLORINE	a. PPM	b. LB/HR	c.	d.
17. HYDROCARBONS AS CH_4	a. PPM	b. Unknown & variable LB/HR	c.	d.
18. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
19. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
20. NITROGEN	a. PPM	b. LB/HR	c.	d.
21. NITROGEN OXIDES AS NO_2	a. PPM	b. Unknown & variable LB/HR	c.	d.
22. SULFUR DIOXIDE	a. PPM	b. 540 LB/HR	c. Calculated U.S. AP - 42	d.
23. OTHER (SPECIFY)	a. Smoke PPM	b. 3.0 - 5.0 Ringelmann LB/HR	c. Hayes Smoke Meter	d.
24. PARTICULATE MATTER	a. Est 565 to 960 PPM	b. Est. max 96 LB/HR	c. Estimate correlating particulate to smoke density from Lear-Siegler tests.	d.

25. PARTICULATE MATTER COMPOSITION. EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal fly ash & fines 100%.

36. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: None

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

EMISSIONS DURING
MALFUNCTIONS, BREAKDOWN OR STARTUP

Joliet Plant Heating Plant Boiler #4

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO.

DATE

1. NAME OF OWNER: Caterpillar Tractor Co.

2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER): Caterpillar Tractor Co.

3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road

4. CITY: Joliet

NOTE: 1. APPLICANT MUST SUBMIT TWO COPIES OF THE EMISSION DURING MALFUNCTIONS, BREAKDOWN, OR STARTUP FORM APC-96.

2. EACH SUCH EMISSION SOURCE SHALL BE CLEARLY LABELED ON THE ATTACHED PROCESS FLOW DIAGRAM.

ANALYSIS OF EXHAUST GAS TO THE AMBIENT AIR

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
14. CARBON MONOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
15. CARBON DIOXIDE	a. PPM	b. Unknown & variable LB/HR	c.	d.
16. CHLORINE	a. PPM	b. LB/HR	c.	d.
17. HYDROCARBONS AS CH_4	a. PPM	b. Unknown & variable LB/HR	c.	d.
18. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
19. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
20. NITROGEN	a. PPM	b. LB/HR	c.	d.
21. NITROGEN OXIDES AS NO_2	a. PPM	b. Unknown & variable LB/HR	c.	d.
22. SULFUR DIOXIDE	a. PPM	b. 540 LB/HR	c. Calculated U.S. AP - 42	d.
23. OTHER (SPECIFY)	a. Smoke PPM	b. 3.0 - 5.0 Ringelmann LB/HR	c. Hayes smoke meter	d.
24. PARTICULATE MATTER	a. Est 565 to 960 PPM	b. Est. max 96 LB/HR	c. Estimate correlating particulate to smoke density from Lear-Siegler tests.	d.

25. PARTICULATE MATTER COMPOSITION. EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Coal fly ash & fines 100%.

36. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: None

EXHIBIT F (Continued)

(b) Short term steam and heat loss will cause immediate freezing and resulting freeze damage to the heating and ventilating intake coils on top of the plant manufacturing buildings.

Long term loss of steam and heat will again cause roof top heating and ventilating coil damage. It will also cause:

1. Interruption of manufacturing operations and economic loss due to the loss of process steam, interruption of cafeteria food service for employees, and 6000 uncomfortable and unhappy employees complaining of lack of heat and loss of food service.
2. General freeze damage will occur to manufacturing facilities and equipment.

(c)

Malfunction or Breakdown	Expected Duration	Expected Smoke (Ringelmann)	Expected SO_2 Removal
Power failure	10 min.	3 - 4	Temporary interruption (after 1974)
Stoker pin failure	10 min.	3 - 4	N/A
I.D. Fan failure	15 min.	3 - 4	None (after 1974)
F.D. Fan failure	15 min.	4 - 5	N/A
Overfire fan failure	5 min.	2 - 3	N/A
Gas boiler major failure	1 hour	5 max.	N/A
Proposed SO_2 scrubber and/or and/or chemical plant failure Boilers No. 2 & 3 (1974 & later)	Unknown (Hrs to days?)	2.0 max	None (after 1974)
Proposed combination coal & gas fired Boiler No. 4 major failure to gas firing equipment (fall 1973 and later)	Unknown (Hrs to days?)	2.0 max	None
Soot blowing (to 1974)	2/day @ 5 min ea	4.3 max	N/A

(d & e)

MALFUNCTION AND BREAKDOWN

The following malfunction and breakdown incidents will violate the visual particulate and SO_2 emission standards at times until normal operation can be resumed.

POWER FAILURE

1. The two (2) Caterpillar Diesel Electric Sets are automatically started when normal power fails.
2. Maintain normal water operating level.
3. Manually restart the I.D. Fan, F.D. fan, overfire fan and other auxiliary equipment.

NOTE: Each diesel electric set can only handle two boilers at the same time. The 379 Diesel serves Substation #6 (#1 and #2 Boilers, #1 and #2 Compressors, & auxiliary boiler room equipment). The 398 Diesel serves Substation #11 (#3 & #4 Boilers, and #1 deep well).

BOILER EMERGENCIES

1. In the event of a major failure of equipment such as fans, stokers, etc., the boiler must be immediately shut down and steps taken to start the standby boiler.

   I.D. Fan, F.D. Fan and Overfire Fan Failure

   A. When any of the above fans fail, remove boiler from the line per shutdown procedure.
   B. Reduce load as soon as possible.
   C. Start up another boiler, if available.
   D. Repair fans and start up again if the boiler is needed.

   Stoker Breakdown

   Repair with boiler on the line, if possible.

2. In the event of any operating problem that would cause excess smoke, the boiler must be shut down within five minutes if the trouble cannot be corrected.

Boiler Tube Failure

1. Stop fuel feed and combustion air.
2. Keep the I.D. fan in operation.
3. Continue to feed water to boiler if possible to do so without drawing too heavily on the feed water supply to the point other boilers would be endangered.
4. Shut off feed water supply to boiler soon as it has cooled down enough to prevent any further damage.
5. In the event of low water in the boiler, not visible in gauge glass, take immediate steps to shut boiler down.

Major Steam Leaks

1. In the event of a major break in main steam lines anywhere in the plant and the steam load begins to exceed the capacity of the boilers, to the point where proper combustion of smoke could not be controlled, then take steps to close the main steam line header to the section of plant involved.

Boiler Grate Operation

1. Do not ever use a heavier shear pin than we are now using.
2. At the present time we feel that the alarm-stop switches are set properly. Do not adjust them except for a very good reason and report any adjustment made to your supervisor.

3. During operations if the grates should become stalled and the alarm switch stops the grates or a pin shears, use the following procedure:
   a. Increase the air flow to keep the grates cool while stalled.
   b. Allow the ash bed to build up to help keep the grates cool.
   c. Slack off on the fuel feed as much as possible.
   d. Try reversing the grates - not more than three or four inches - then try running the grates forward. If grates cannot be made to operate freely within an hour or if grates start to heat red, then kill the fire and put another boiler on the line.
   e. Continue air flow through stalled grates.
4. In the event of a stalled grate, immediately start making preparations to put another boiler on the line if the grate cannot be cleared. This would save an hour of time.

Bunker Fire

1. Run hot coal through the stokers as soon as possible.
2. Empty the entire bunker outside on the ground. Hose coal down as the bunker empties.

Proposed SO_2 Scrubber Breakdown (early 1974)

The SO_2 Scrubber will be bypassed until the scrubber and/or chemical treatment plant malfunction can be repaired and returned to service. It is anticipated that repairs will be made as soon as possible and every effort will be made to keep this experimental full scale pilot plant scrubber and chemical plant system in service.

Proposed Combination Fuel Boiler #4 (Fall 1973)

When and if a major malfunction of the gas firing equipment occurs, it is anticipated that the boiler will be operated on 100% coal. Every effort will be made to repair the gas firing equipment and return it to service as quickly as possible.

63A

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

COMPLIANCE PLAN

Joliet Plant Heating Plant Boilers #2 & #3

I.D. NO.

PERMIT NO. 0

DATE

1. NAME OF OWNER: Caterpillar Tractor Co.	7. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER): Caterpillar Tractor Co.
2. TELEPHONE NUMBER: 815-729-5511	8. TELEPHONE NUMBER: 815-729-5511
3. STREET ADDRESS OF OWNER: Box 504	9. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
4. CITY: Joliet	10. CITY: Joliet / 11. LOCATED WITHIN CITY LIMITS ☐YES ☒NO
5. STATE: Illinois / 6. ZIP CODE: 60434	12. COUNTY: Will / 13. ZIP CODE: 60434

043000021

THE UNDERSIGNED HEREBY FILES THIS COMPLIANCE PLAN RELATING TO THE EQUIPMENT DESCRIBED HEREIN AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. THE UNDERSIGNED APPROVES EACH AND EVERY PROVISION OF THE PROGRAM DESCRIBED IN THIS COMPLIANCE PLAN AND RELATED PROJECT COMPLETION SCHEDULES.

OWNER (IF INDIVIDUAL)

SIGNATURE DATE

YOUR IDENTIFICATION NUMBER (OPTIONAL)

OWNER (IF CORPORATION OR PARTNERSHIP)

Caterpillar Tractor Co. 1-29-73

EXACT CORPORATE OR PARTNERSHIP NAME DATE

George Lumstrom Vice-President

SIGNATURE OF OFFICER TITLE OF OFFICER

A CORPORATE OWNER MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF ITS BOARD OF DIRECTORS AUTHORIZING THE OFFICER SIGNING THE APPLICATION TO EXECUTE THIS COMPLIANCE PLAN, AND TO CAUSE OR ALLOW THE CONSTRUCTION, MODIFICATION AND OPERATION OF THE EQUIPMENT TO BE COVERED THEREUNDER.

THIS PERMIT APPLICATION CONSISTS OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-95 1 copy 2 pages Boiler Nos. 2 & 3
APC-61 2 copies 4 pages each SO_2 & Particulate Scrubbers
APC-103 1 copy 5 pages SO_2 & Particulate Scrubbers Sludge Disposal
APC-98 1 copy 1 page SO_2 & Particulate Scrubbers
Addendum A 1 copy 1 page SO_2 & Particulate Scrubbers
Flow Diagram & Drawings 1 copy 12 pages SO_2 Scrubbing System Boilers #2 & #3

14. The applicant shall submit a process flow diagram depicting all emission sources and all air pollution control equipment covered by this Compliance Plan and related Operating Permit application. The diagram shall include labels for each source and equipment, and shall set forth maximum flow rates for (1) all process equipment, (2) all air pollution control equipment, (3) all emission sources and (4) all stacks and vents.

(If this information has been previously submitted with the Operating Permit application, the applicant need not resubmit the diagram but may reference appropriate drawing number(s)).

Number of sheets: 14 Drawing Number(s): 11, 12, C2637 C26430 Sheet 1, 2, 3, 5, 8 C26939 Sheet 1, 2, 3, 4, 5, 6

15. The applicant shall submit a detailed description of the equipment he proposes to install to comply with the Environmental Protection Act and applicable substantive Regulations. This description shall include information as to the technical reasonableness of the proposed air pollution control equipment or control techniques, and engineering reports or studies sufficient to prove that the installation of this equipment will result in the operation being in compliance with the Act and applicable substantive Regulations. This equipment shall be accurately and clearly labeled on the process flow diagram. Detailed information for each item of equipment shall be submitted in one of the following three ways:

(a) If the applicant has entered into a binding agreement or contractural obligation to purchase specific items of equipment, he shall complete applicable Construction Permit application forms, and shall note on page one (1) of such forms "This equipment is purchased, but not installed, as part of our Compliance Plan for the operation, and is indicated on drawing (complete as necessary) as item (complete as necessary)." The applicant shall submit a list of those forms so marked and attach to this Plan as Exhibit N.

Total number of pages in Exhibit N: Construction permit CE 72 013 granted 2/17/72 Extension applied for attached. 25 pages

(b) If the applicant has selected but not entered into a binding agreement or contracturual obligation to purchase specific items of equipment, he shall complete applicable Construction Permit application forms and shall note on page (1) of such forms "This equipment is to be purchased and installed as part of our Compliance Plan for this operation and is indicated on drawing (complete as necessary) as item (complete as necessary)." The applicant shall submit a list of those forms so marked and attach to this Plan as Exhibit P.

Total number of pages in Exhibit P: None

(c) If the applicant has selected the type of air pollution control equipment or control techniques but has not selected specific items of equipment, he shall (A) submit performance specificationswhich detail the performance of the equipment to be procured; (B) provide a test plan which will detail how the equipment, purchased pursuant to a given specification, will be tested to prove that the equipment meets the applicable performance specifications; and (C) attach this information to this Plan as Exhibit Q.

Total number of pages in Exhibit Q: None

16. The applicant shall submit a Project Completion Schedule (Form APC-98) for each item of air pollution control equipment or control technique. The final compliance date of such Project Completion Schedule shall be no later than the applicable date described in Chapter 2: Air Pollution.

Total number of Forms APC-98 submitted with this application: 1

0430000214

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

COMPLIANCE PLAN

Joliet Plant Heating Plant
Boiler No. 4 Gas Conversion

I.D. NO.
PERMIT NO. 0
DATE

1. NAME OF OWNER: Caterpillar Tractor Co.	7. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER): Caterpillar Tractor Co.
2. TELEPHONE NUMBER: 815-729-5511	8. TELEPHONE NUMBER: 815-729-5511
3. STREET ADDRESS OF OWNER: Box 504	9. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
4. CITY: Joliet	10. CITY: Joliet / 11. LOCATED WITHIN CITY LIMITS ☐ YES ☒ NO
5. STATE: Illinois / 6. ZIP CODE: 60434	12. COUNTY: Will / 13. ZIP CODE: 60434

THE UNDERSIGNED HEREBY FILES THIS COMPLIANCE PLAN RELATING TO THE EQUIPMENT DESCRIBED HEREIN AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. THE UNDERSIGNED APPROVES EACH AND EVERY PROVISION OF THE PROGRAM DESCRIBED IN THIS COMPLIANCE PLAN AND RELATED PROJECT COMPLETION SCHEDULES.

OWNER (IF INDIVIDUAL)

SIGNATURE DATE

YOUR IDENTIFICATION NUMBER (OPTIONAL)

OWNER (IF CORPORATION OR PARTNERSHIP)

Caterpillar Tractor Co. 1-29-73
EXACT CORPORATE OR PARTNERSHIP NAME DATE

Vice-President
SIGNATURE OF OFFICER TITLE OF OFFICER

A CORPORATE OWNER MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF ITS BOARD OF DIRECTORS AUTHORIZING THE OFFICER SIGNING THE APPLICATION TO EXECUTE THIS COMPLIANCE PLAN, AND TO CAUSE OR ALLOW THE CONSTRUCTION, MODIFICATION AND OPERATION OF THE EQUIPMENT TO BE COVERED THEREUNDER.

0 4 3 6 0 0 0 0 2 1

THIS PERMIT APPLICATION CONSISTS OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-95	1 copy	2 pages	Boiler No. 4 Gas Conversion
APC-85	1 copy	3 pages	Boiler No. 4 Gas Conversion
APC-62	1 copy	3 pages	Boiler No. 4 Gas Conversion
APC-98	1 copy	1 page	Boiler No. 4 Gas Conversion

14. The applicant shall submit a process flow diagram depicting all emission sources and all air pollution control equipment covered by this Compliance Plan and related Operating Permit application. The diagram shall include labels for each source and equipment, and shall set forth maximum flow rates for (1) all process equipment, (2) all air pollution control equipment, (3) all emission sources and (4) all stacks and vents.

(If this information has been previously submitted with the Operating Permit application, the applicant need not resubmit the diagram but may reference appropriate drawing number(s)).

Number of sheets: 1 Drawing Number(s): 13

15. The applicant shall submit a detailed description of the equipment he proposes to install to comply with the Environmental Protection Act and applicable substantive Regulations. This description shall include information as to the technical reasonableness of the proposed air pollution control equipment or control techniques, and engineering reports or studies sufficient to prove that the installation of this equipment will result in the operation being in compliance with the Act and applicable substantive Regulations. This equipment shall be accurately and clearly labeled on the process flow diagram. Detailed information for each item of equipment shall be submitted in one of the following three ways:

(a) If the applicant has entered into a binding agreement or contractural obligation to purchase specific items of equipment, he shall complete applicable Construction Permit application forms, and shall note on page one (1) of such forms "This equipment is purchased, but not installed, as part of our Compliance Plan for the operation, and is indicated on drawing (complete as necessary) as item (complete as necessary)." The applicant shall submit a list of those forms so marked and attach to this Plan as Exhibit N.

Total number of pages in Exhibit N: None

(b) If the applicant has selected but not entered into a binding agreement or contracturual obligation to purchase specific items of equipment, he shall complete applicable Construction Permit application forms and shall note on page (1) of such forms "This equipment is to be purchased and installed as part of our Compliance Plan for this operation and is indicated on drawing (complete as necessary) as item (complete as necessary)." The applicant shall submit a list of those forms so marked and attach to this Plan as Exhibit P.

Total number of pages in Exhibit P: 6

(c) If the applicant has selected the type of air pollution control equipment or control techniques but has not selected specific items of equipment, he shall (A) submit performance specificationswhich detail the performance of the equipment to be procured; (B) provide a test plan which will detail how the equipment, purchased pursuant to a given specification, will be tested to prove that the equipment meets the applicable performance specifications; and (C) attach this information to this Plan as Exhibit Q.

Total number of pages in Exhibit Q: None

16. The applicant shall submit a Project Completion Schedule (Form APC-98) for each item of air pollution control equipment or control technique. The final compliance date of such Project Completion Schedule shall be no later than the applicable date described in Chapter 2: Air Pollution.

Total number of Forms APC-98 submitted with this application: 1

0430000216

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

PROJECT COMPLETION SCHEDULE

Joliet Plant Heating Plant Boiler No. 4 Gas Conversion

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO. 0

DATE

1. NAME OF OWNER: Caterpillar Tractor Co.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER): Caterpillar Tractor Co.
3. STREET ADDRESS OF EMISSION SOURCE: Channahon Road
4. CITY: Joliet
5. NAME OF AUTHORIZED PERSON PREPARING THIS FORM: R. F. Vonachen
6. SIGNATURE: R F Vonachen
7. YOUR IDENTIFICATION NUMBER: (OPTIONAL)
8. DATE THIS FORM 98 PREPARED: 1-10-73
9. OPERATING PERMIT NUMBER: (IF AVAILABLE)
10. CONSTRUCTION PERMIT NUMBER: (IF AVAILABLE)

THIS FORM MUST BE COMPLETED FOR EACH ITEM OF EQUIPMENT TO BE CONSTRUCTED OR MODIFIED IN ACCORDANCE WITH A COMPLIANCE PLAN.

16. DESCRIBE THE ITEM OF EQUIPMENT TO BE CONSTRUCTED OR MODIFIED:

Existing coal fired boiler No. 4 at the Joliet Heating Plant is to be converted to natural gas in stages according to available natural gas commitments. Stage (1) calls for conversion of 2/3 boiler capacity to natural gas during 1973 to take advantage of a 20,000 therm commitment. The boiler will be operated as a combination fuel source until enough natural gas is available by 1975 to operate it completely on natural gas or with natural gas and low sulfur coal with an additional scrubber if necessary.

12. IDENTIFY THE LABEL OF THIS ITEM OF EQUIPMENT AS GIVEN ON THE APPROPRIATE PROCESS FLOW DIAGRAM: Gas conversion Drawing No. 13

13. STATE THE PURCHASE PRICE OF THIS EQUIPMENT: ☐ ESTIMATED ☐ ACTUAL $ N/A

14. STATE THE TOTAL COST (EQUIPMENT PLUS INSTALLATION): ☐ ESTIMATED ☐ ACTUAL $ N/A

15. COMPLETE ALL OF THE FOLLOWING INFORMATION IN COLUMNS A AND B. COMPLETE COLUMN C AS APPLICABLE.

	A. EXPECTED DATE ACTIVITY WILL BE COMPLETED	B. LATEST DATE ACTIVITY WILL BE COMPLETED	C. ACTUAL DATE ACTIVITY WAS COMPLETED
a. STATE DATE THE APPLICANT WILL ENTER INTO A BINDING AGREEMENT TO PURCHASE OR MODIFY THIS ITEM OF EQUIPMENT.	2-1-73		
b. STATE DATE THE APPLICANT WILL APPLY FOR A CONSTRUCTION PERMIT FOR THIS ITEM OF EQUIPMENT OR MODIFICATION OF EQUIPMENT.	2-1-73		
c. STATE DATE THIS ITEM OF EQUIPMENT WILL BE DELIVERED (IF PRESENT EQUIPMENT IS TO BE MODIFIED, STATE WHEN SUCH MODIFICATION SHALL BEGIN) TO THE APPLICANT'S FACILITY.	4-1-73		
d. STATE DATE CONSTRUCTION OR MODIFICATION OF EQUIPMENT WILL BE COMPLETED.	7-1-73		
e. STATE DATE APPLICANT WILL TEST EQUIPMENT TO DEMONSTRATE COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION ACT AND SUBSTANTIVE REGULATIONS PROMULGATED THEREUNDER.			
f. STATE DATE EQUIPMENT WILL BE FULLY OPERATIONAL.	2/3 compliance 7-1-73	Full compliance 5-30-75	

125 x 10⁶ BTU/HR